























ILLINOIS AND INDIANA

MEDICAL AND SURGICAL

JOURNAL.

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# ILLINOIS AND INDIANA

## MEDICAL AND SURGICAL JOURNAL.

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Vol. I.

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### PART I.—ORIGINAL COMMUNICATIONS.

#### ARTICLE I.

*Epidemic Erysipelas*, as it occurred in Logansport (Indiana,) and its vicinity, in 1845. By G. N. FITCH, M.D., Professor of Institutes and Practice of Medicine, in "Rush Medical College," Chicago.

Considerable uniformity was observed in the manner of invasion. After a soreness of some superior portion of the neck, (internal or external,) of variable severity and duration, a rigor, in some cases slight, in others well marked, ushered in a more violent attack. The first local affection (of neck) was, in a majority of cases, internal; occupying the pharynx more particularly, but involving one or both tonsils, soft palate, and base of the tongue. There were, in these cases, more or less tumefaction of parts, increased vascularity, and redness of lining membranes, with difficulty and pain of swallowing; so great in some as to amount to almost total prohibition, the fluids regurgitating through the mouth or nose. In other cases there was manifest but little, if any, soreness of internal fauces; but tenderness, pain, and enlargement of cervical absorbents, sub-maxillary, and parotid gland of one side, or of sterno-mastoid muscle of one side in its upper third. In some few cases the rigor was the first evidence of disease; the local inflammation or pain not being developed until during it, or during the subsequent febrile excitement. The pulse, after the febrile reaction, became well established and rapid, 90 to 130, generally small, resisting and hard; variable, in those of same age and other apparent equal physical circum-

stances, in its rapidity and fullness; but in every instance, more rapid and smaller, and I may add, more corded than in our ordinary miasmatic fevers. Surface hot, though, in some, bathed with perspiration in a few hours after the disappearance of rigor; perspiration occurring thus early, not operating, however, as a relief to the patient, nor lessening the intensity of fever or heat of the skin. If the pharyngeal inflammation was severe, the lower extremities evinced a tendency to coldness. Tongue yellowish-white or brown. Nausea and vomiting attended the commencement of many cases. Thirst not very considerable, except in those violent cases in which deglutition was much impeded. Such, as I have described, was the manner of attack and symptoms, in by far the greater proportion. (*See (f) of tabular statement annexed.*) These symptoms constituted the entire disease in many; it yielding to treatment without involving any other part, and without the supervention of any other symptoms or changes, except such as indicated the gradual restoration of health. A portion, by no means small compared with the aggregate, were not, however, so fortunate, and the disease had a still further, though varied course to run. The inflammation occupying the pharynx and contiguous parts, would travel through the posterior nares, make its appearance externally, in the form of decided *erysipelas*, upon one *ala nasae*, or on the septum or tip of the nose, then spreading with varied rapidity over the face, forehead, scalp, and creeping down the neck to the superior portion of the trunk, and one or both upper extremities. Or it would reach the surface by the ear along the eustachian tube, and thence spread in the same manner over more or less extent.

(h) Its appearance upon the external nose was preceded by a sense of fullness and heaviness of the frontal region, with obstruction of the nasal fossæ, and in some instances, discharge of bloody sanies. So likewise, there occurred, previous to its exhibition upon the external ear, deafness and pain in one or both ears, with, perhaps, the same sanious discharge. These symptoms, pain, fullness, and discharge from the parts, were not, in every instance, followed by external *erysipelas*. In some few cases the disease would be first visible, externally, at an angle of the mouth. Where the primary attack was in the cervical lymphatics, or parotid gland, or sterno-mastoid, the *erysipelas* of integuments usually commenced immedi-



ately over or near the part first affected. When it appeared externally, the inflammation was marked by vivid redness, considerable tumefaction, tenderness to touch, and hardness. Vesication was not constantly present; it was usually found in those cases where the tumefaction was greatest. When the palpebræ were reached in the progress of the inflammation, the swelling was so great as to close the eyes; the conjunctiva was rarely, if ever, involved.

Soreness of the neck was, in other instances, followed by erysipelas of integuments of superior, (i) or inferior (k) extremities, commencing usually on a finger, or toe; or by enlargement and pain of axillary glands, with, or without erysipelas of integuments in vicinity (l). In any situation where it existed, as the inflammation of the integuments spread, the tenderness to touch and hardness of parts previously traversed, gradually gave way to an uneasy tingling or itching sensation, and became œdematous (pitting) from effusion into cellular membranes beneath, and in the interstices of muscles. There was, at the same time, a diminution of redness, and desquamation commenced. In unfavorable cases, although desquamation in some degree, might commence, the original hardness and tenderness remained; the redness became livid—pulse increased in frequency, losing its hardness, and becoming thread-like, almost imperceptible; surface cool, and cold extremities, muttering delirium, or incoherency, or coma preceded a fatal result.

Acute Laryngitis supervened upon the primary attack in some, (m) constituting a formidable and distressing complication. The respiration, particularly inspiration, was long, laborious, croupy, with livid lips and face, starting eye-balls, and intense feeling of immediate suffocation, which too often quickly followed. Secondary inflammation of other organs or tissues; likewise followed the primary attack of neck or fauces, after an indeterminate period. Thus the bronchiæ (p) or pleura, (n) became the seat of inflammatory action. In females who had menstruated, peritonitis was of not uncommon occurrence, (s) independent of any condition of pregnancy. The dermoid tissue of vulva and contiguous parts were sometimes (t) seized with erysipelas. The pulse was varied little if any, by secondary inflammation of any organ or membrane; retaining its characteristic rapidity, smallness and hardness. In

*every instance* of the supervention of secondary symptoms, whether erysipelas of integuments, or inflammation of other parts, the original inflammation of fauces or neck, with its accompaniments, pain and tumefaction gradually disappeared. The subsidence of the first local symptoms never preceded, or was simultaneous with the secondary attack, so as to admit the supposition of metastasis. In some few cases the primary attack was not of the fauces or neck, but of the integuments of an extremity. Here, however, the symptom which can, I think, with propriety, be looked upon as characteristic of the disease, (soreness of the neck or fauces) was found present at some period of their progress.

Some attacks were, so far as could be ascertained, attributable solely to epidemic influence; the patients not having had any intercourse direct, or otherwise, previously, with any of the diseased. I do not entertain a doubt, however, of its contagious nature. By far the greater number of severe cases were traceable directly to this origin, and in turn communicated the disease to others; numerous examples, in proof of this, could be adduced. I shall be compelled, in an article condensed, as this is designed, to content myself with a few, well marked, —though not more unequivocal than many others. Two gentlemen, one resident twenty, and the other five miles distant, visited the house of a friend, four of whose family were confined with the disease in some stage. There had been no erysipelas in their respective neighborhoods;—none indeed nearer than at this point. They remained twelve or sixteen hours. In three days after their return both were seized with the disease. The attack of the one residing nearest proved mild, and it was not propagated to any extent from him. The other died; previously communicating it to almost every member of his father's large family;—one other of whom died also,—and from whom it spread over a considerable region, embracing a town of a thousand inhabitants.

A venerable lady 60 years old, residing distant ten miles in a sparsely settled vicinity, came into town to attend a sick married daughter, whose children had the erysipelas. She went home with it, or was seized immediately after her return. She had two other daughters, and three sons, married and living within one to three miles of her, and of each other;—yet so great was the terror of the disease from exaggerated



reports of its fatality in town, that none evinced a willingness to become her attendant. Her aged husband was therefore nearly her sole one, until he was prostrate with the same. The elder daughter then became nurse for both: she was seized and died. Her husband, who had been at her bedside during her illness, was next attacked. The fear of the disease was naturally increased by these rapidly consecutive cases; and it was with great difficulty any could be found sufficiently courageous to perform the last offices for the dead, or administer to the wants of the sick. A sister-in-law of the deceased heroically volunteered her services; was soon taken and communicated it to her husband.

A nurse in attendance upon a family sick with it, was attacked went to her mother's, five miles distant, and spread it through her family.

The mother of a large family, four miles from town, washed bed-clothes and wearing apparel belonging to the family of a relative in town, among whom, then and previously, the disease was. She had a slight wound—a mere scratch, on the end of one finger, which had escaped her memory:—erysipelas attacked it, and spread over the arm, face, and scalp. During her illness, her family (five) were taken. The case of this mother is one of those, briefly alluded to before, in whom the primary attack was not of the neck or fauces; one of those parts, however, becoming affected in its farther progress. In all this (g) class of cases the disease was clearly contracted by inoculation. It is unnecessary to multiply cases in proof of its contagiousness. A sufficient number have been already mentioned to show the nature of the testimony upon which the entire absence of all “doubt” upon the subject, heretofore expressed, was based. I had seen the disease before; but not under circumstances to satisfy me of its contagiousness. When it first appeared here, therefore, my prejudices were strongly in favor of the negative side of the question. They were abandoned, only, after reiterated proof, afforded by observation, of their erroneousness. Some predisposition is, unquestionably, necessary for its contraction. Of those exposed to the contagion, only about one in two, or two and a half, appeared to be susceptible of its influence. In what the predisposition consists, we are, and probably, ever will remain, ignorant. Of the cases in the annexed statement, occurring in my practice,

only a small number were under 12 years (a) of age. It must not hence be inferred, that childhood, and infancy operated as an immunity against the disease—only that the greater number had it very mild;—so mild, that no notes were taken of their cases. Of those above that age, more than half were females. (r) An obvious reason is presented for this, without supposing any peculiar predisposition in the sex, in the fact of their services being more frequently called into requisition in the capacity of nurses. How far having had it may protect against several attacks, I am not prepared, fully, to assert. From the result of very many second exposures, under apparently favorable circumstances for its contraction, my opinion is *strongly* biased in favor of one attack granting future exemption.

The sheet anchor, in treating it, is bleeding. This remedial agent was first resorted to cautiously, and with close attention to its effects. As the cases multiplied, thereby enlarging the field for observation and comparison of different modes of treatment, from its relatively much greater success, it was used boldly and freely. No remedy was as decidedly successful in so great number of cases,—no other remedy so frequently checked the disease—strangled it in its incipency, or at least so modified its symptoms, as to render its subsequent course comparatively mild, when had recourse to at the proper time, and to such extent as the individual case demanded. The time for the lancet, was as soon as reaction, subsequent to the rigor, was fairly established; and the sooner thereafter, *ceteris paribus*, the greater, and more permanent, the curative impression. True, it was often required at uncertain subsequent periods, where it had, as well as where it had not been adopted early, in consequence of the supervention of secondary inflammation of some organ or tissue. Where thus indicated, the quantity was governed, as usual, by importance of the part seized, severity of symptoms, and relief obtained. After diminution of hardness of pulse, and increase of its frequency, with coolness of surface, and coldness of extremities, even when accompanied with delirium, or approach to coma, it became a doubtful remedy, although it may not have been previously used. Local bleedings were the safe depletory means here, if any were admissible. The benefit derivable from bleeding, was proportioned in an increase ratio, to the length of time that had elapsed since developement of the disease;



and, except in those cases where demanded by secondary inflammation of vital tissues, it became doubtful, in a ratio directly proportioned to same lapse of time. I have bled beneficially as late as the fourteenth day; and have seen injury result as early as the fifth; and other cases where it was clearly inadmissible on the third. It will be seen that, of the cases between 12 and 21 (x) not bled, all recovered. They were mild throughout their progress, and in part, not seen until the period at which bleeding would be expected to beneficially break into the diseased train of action, had passed. So with those of greater age, not bled, or where original debility of habit, or advanced life forbade the remedy. Next to bleeding in importance, in the commencement, I rank emetics. Neither these nor bleeding should be resorted to in all cases, by routine or empirically, without, that is, the presence of symptoms which would afford satisfactory reasons for their use. Emetics were found particularly applicable to those cases accompanied with nausea, with or without vomiting, and with a yellowish-white tongue. Their repetition the second or third time, was demanded when there was difficult deglutition from viscid mucus in the inflamed pharynx; likewise when the larynx became the seat of inflammation. Under no other circumstances was their administration in the advanced stages followed by any compensating mitigation of symptoms. Cathartics were necessary throughout its entire course, but violent purging to be deprecated. I preferred, as a first cathartic, sub-chloride mercury, grs. 10 to 20, followed, in four to six hours, by ol. ricini, or sulph. magnesiae. The repetition of sub-chloride was governed by appearance of the tongue and discharges. Care, however, should be taken, when the fauces were the seat of the local disease not to induce its constitutional effects. Ptyalism was productive of no good, except where there was existent secondary inflammation of peritoneum, bronchiæ, or lungs. Then its administration in alterative doses was decidedly indicated; these inflammations, particularly the first, yielding only to the combined influence of the lancet and mercurials, with such *adjuvants* as were called for by the individual case, or are most in vogue in acute diseases of these parts.

The mercurial, in peritonitis more especially, was usually combined with an opiate, where the lancet had been premised.

In the affection purely of the fauces, alterative mercurials were mischievous, and of doubtful efficacy in any other than the inflammatory complications above mentioned. When the inflammation was of the pharynx and fauces, counter irritants were applied to the neck—in milder cases, stimulating liniment; in the more severe, blisters. Various collutories were tried. All, however after a fair trial, and experience of their inefficiency, were discontinued, except dilute tinct. iodine.

*Tinct. Iodine, 3j*

*Proof Spirit, 3vi*

With this the patient was directed to gargle three to five times daily. In the urgent cases, attended with violent pyrexia, great pain, and difficult deglutition, the fauces were scarified, and bleeding encouraged, by gargles of warm water. The best means of discussing enlargement of the lymphatics and parotids and reducing the accompanying inflammation, was strong tinct. iodine, applied every four hours, by means of gentle friction, or of a piece of flannel moistened with it, and worn upon the neck as long as it could be borne, and renewed after the effect had partially subsided. In erysipelas of integuments resort was had to every plan of treatment offering a rational expectation of checking its progress and moderating symptoms. I speak more particularly of local,—the general treatment was that already described, modified by duration and severity of fever. Sol. nit. argent., tinct. iodine, oint. iodine, mercurial oint. and numerous other topical applications were made to inflamed surface in the first stage of the inflammation, that is, before effusion, the part being yet hard and painful. Certainly no good effect resulted, in any case, and in some the reverse. It was judged that emollient cataplasms would be more successful. They were tried, and found even more objectionable than the first named local means. Their inner surface dried, and became glued to the inflamed cuticle. When an effort was made to take them off for renewal, or any other purpose, dry crusts were found tenaciously adherent, which the attendants would either tear off with force and increase the inflammation and pain thereby; or leave to act as a constant local irritant upon an inflamed surface, and produce, what was actually the result in some cases, superficial sloughing. Mischiefs growing out of applications of this kind was still more apparent where there were vesications. The



vesicles breaking, their contents would form, with the cataplasms, hard crusts which could not be removed without the application of considerable force. The only instances of gangrene of integuments to any extent, within my knowledge, were clearly attributable to the neglected presence of these crusts consequent upon the use of cataplasms as a domestic remedy, or in the hands of empirics. The only topical remedy, the success of which warranted its use in every case, in the phlegmonous stage, was a liniment of ol. lini. and aqua calcis, equal parts. This, when applied with a soft cloth or feathered end of a quill, allayed the burning, and communicated a grateful cooling sensation, not obtained by other means. To check the progress of the inflammation, nit. argent, in substance was used, by applying it to the contiguous sound skin, in such manner as to surround the diseased part, at least in the direction of its advance. In no instance did it fulfil the indication desired, in even a small degree; although applied freely, and frequently. The disease, in some instances, it is true, did not spread far beyond the cauterized line; but in such it was obvious, from its appearance, and the concomitant symptoms, that the inflammatory extension was nearly exhausted, and about reaching a spontaneous limitation.

I saw no reason for believing that the inflammation of integuments, while recent, and in full vigor, was checked in its onward advance, for a limited time, much less stopped, by this caustic. Blisters were applied in the manner usually directed, viz: by surrounding the diseased surface with a *cordon* of various strips, spread with the vesicating plaster, leaving a part only of each strip in contact with the sound skin. The effort to thus impede its march was soon ascertained to be nugatory. Before vesication, or indeed any considerable irritation, of the surface ensued, erysipelas was found occupying the integuments beyond the limits thus vainly attempted to assign to it. I, therefore, applied the strips sufficiently in advance to procure full vesication before the disease reached the surface covered by them,—say one half to one inch. In this manner, a complete stop was put to its farther progress; or, if it extended beyond, it was less violent; wanting the vivid redness, and tumefaction which characterized it within the blistered circumference. In the œdematous stage (after pitting) it became important to procure the absorption,

or discharge of effused serum. For hastening the first process nothing equalled the topical application of tinct. iodine dilute, (*tinct. iodine* 3 ij, *proof spirit* 3 ij to 3 jv). When its use every four hours, for 24 to 48 hours, failed to procure perceptible reduction of tumefaction; or when the latter was very considerable, it was not exclusively relied upon. Under such circumstances free incisions were made; or, the situation of the part forbidding that, punctures with a lancet. The use of these means early in the oedematous stage, prevented suppuration. When they were neglected, the effused serum, either from tension of its quantity, or its irritating quality, produced suppurative action,—broke down the cellular membrane—became extensively diffused in the interstices of muscles, and at last made its way externally through an ulcerated or excised opening, mingled with pus, and shreds of sphacelated cellular membrane. I am unwilling to admit the possibility of the occurrence of gangrene as a termination, unless from neglect, in the patient, of early seeking proper medical aid; or criminal mismanagement upon the part of the physician in not checking by proper treatment, the first violence of local inflammation, perhaps aggravating it by his topical applications; or in using no precautions against the effects reasonably expected to result from extensive extravasation of serum. Suppuration occasionally followed a glandular inflammation in the axilla, groin or mammæ, involving cellular membrane to some extent, but unaccompanied with erysipelas of superincumbent integuments. In such cases the secretion of pus was not preceded by any oedematous stage, and a circumscribed abscess was formed. If an extremity (hand or foot) was the seat of erysipelatous inflammation, permanent flexion, or extension of more or less of the digital tendons was a usual result; and this equally when the absorption of the serous extravasation was aided only by iodine, and when its discharge was promoted by punctures. Such contraction and partial rigidity were not, as has been supposed by many, caused by a breaking down of cellular membranes surrounding, and consequent agglutination of all parts, tendons, sheath, periostium, muscles and integuments. That it was not, was manifest from the part, (finger) enjoying some degree of mobility, during which it was evident the tendon, though shortened, moved within its theca, unconnected with skin, or bone. That it was not, was proved,



moreover, by the result of several subcutaneous divisions of the affected tendons, after which the finger soon resumed very nearly its natural position. It is proper to remark that during the phlegmonous stage, the blisters were dressed with the same liniment, (ol. lini and aqua calcis) applied to the diseased surface; after œdema, while iodine was applied to the latter, the former were covered with mild blue ointment.

It remains only to notice that formidable variety of this disease,—Puerperal Peritonitis. It is unnecessary at this day to adduce any argument for establishing the identity of this disease, when epidemic, with erysipelas. Every intelligent physician admits it; and any attempt to so elucidate the matter as to convince the benighted understanding of him who does not, would be “casting pearls before swine.” Another matter, however, connected with it is not so well understood, viz: its treatment. At least, if no more successful plan of treatment is ever to be adopted than the one now usually pursued, but a gloomy prospect is presented to those liable to its attacks. Its fatality probably exceeds that of any other acutely inflammatory disease. In Caledonia, Vt., of 30 cases, but one recovered. Twenty died in Bath, N. H., a town of only 1600 inhabitants, and here we infer that the 20 comprised all attacked, although the number of the latter is not stated. (*Vide Amer. Jour.*, Jan., '44.) This, or very similar fatality, has attended it everywhere. It will be perceived that of the cases in the annexed table, nearly half died; and this notwithstanding, from the known prevalence of erysipelas, the peritonitis was expected, carefully watched for, and promptly met. Yet the most decisive treatment could not prevent the death of a large proportion. No treatment, hitherto practiced, has been attended with such success, as to encourage us much in its persistence; but of all *known* remedies, in the onset, none, in my estimation, can compare with bleeding. I say “*in the onset*,” for if that golden moment is permitted to pass, the aid of the lancet had better not be invoked. Indeed, with my late experience, if I had not seen the patient, or had neglected to bleed in the *first few hours* after the rigor, in the more acute cases, I would dismiss the most remote idea of doing it at all. It will only hasten her tomb-bound journey. The severity of attack and danger are proportioned to the shortness of the period that elapses after accouchment before

the rigor. If it makes its appearance in five hours, the onslaught is so violent, that only an imperfect reaction for a short time may follow; the symptoms marking the rapid approach of the last stage—collapse. In most cases a longer time—two or three days—in some cases even more, may supervene before attack. Then a longer period is presented during which bleeding may be required, although then the earlier a vein is opened, the greater the probability of recovery. I followed bleeding with cal. and opium, (gr. 1 to 2 of latter, and gr. 10 to 20 of former,) every four hours. After fourth or fifth dose, oil, if the bowels were not previously moved. Usually, it is true, a bland tepid enema was administered much earlier. The application of mercurial ointment with turpentine to the abdominal parieties, was directed all the time. It will be perceived that every one recovering was ptyalised. Cal. and opium, however, unless preceded by bleeding, did not control the disease, though given as above, or even more freely and frequently for two days or more. It appeared impossible to induce ptyalism without premising bleeding. The system had first to be *reduced* to a mercurial standard. Finding evidence of the constitutional effects of the mercurial an invariable precursor of an amelioration of all urgent symptoms, the disease appearing to give way before it, I was led to hope, that the administration of the same remedy in alterative doses, pushed so far as to give upon the gums mild, but unequivocal manifestations of its effect before accouchment, if kept up gently until that event, might protect against these peritoneal and uterine attacks. Accordingly, mass hydrarg. in grs. 2 to grs. 3 in pills, twice daily, conjoined in some instances with ung. hydrarg. 3i, applied to abdomen every evening with friction, was recommended to several, at periods varying from two to four weeks previous to the expected full term of utero-gestation. In four cases in which the mercurial effect was manifest at the time of delivery, no symptom of peritonitis presented itself. One had the disease quite mildly. The pill was continued until the third or fourth day after accouchment. These few cases (five being all in which this plan was adopted,) do not afford sufficient ground for confident reliance upon the prophylactic power of the remedy. They create a supposition—encourage a *hope*—that it possesses such power; and fortunate, truly, for mothers; will it be if it does. Other



and more extended trials will, I trust, be made by the profession as opportunities present, which will soon be decisive of the matter. In the four cases in the following table, laboring under erysipelas at the time of accouchment, two had it in the integuments, two in the fauces. In all, it was immediately checked upon supervention of peritonitis, requiring no further treatment and gradually disappearing. In no instance did a patient, who had erysipelas at any period during pregnancy, and recovered entirely before confinement, have peritonitis after that event.

The foregoing description of "epidemic erysipelas," is drawn entirely from personal observation; and the treatment such as that same observation and experience taught, in my estimation, to be requisite. For any opinions expressed I must hold myself solely responsible, as I have endeavored to be governed by the dictates of my own judgement, unbiased by any speculative notions of any theoretical or alleged therapeutical deductions of any practical writer.

## SUMMARY.

Entire number of cases of which I took notes, in the counties of Cass, Fulton and Carroll.	-	-	213
(a) Between 6 months and 12 years of age,	-		19
"    12 and 21	"	"	41
"    21 " 31	"	"	52
"    31 " 40	"	"	58
40 and over,	-		43
(f) The primary attack was in fauces, tonsils, sternomastoid muscle or cervical glands in	-	-	182
(g) The disease clearly contracted by inoculation in some other part, (finger usually) in	-	-	9
(h) Primary affection of fauces, &c. (f) was followed by erysipelas of face, scalp, and neck in	-	-	49
(i) By the same affection of integuments of arm and hand in	-	-	10
(k) By same in one or both lower extremities in			6
(l) By inflammation of axillary glands "with or without erysipelas of integuments in vicinity," in	-		7
(m) By Laryngites in (6 males, 2 females, fatal in 6)			8
(n) By pleuntis in	-	-	2
(o) " meningitis in	-	-	1

(p) By bronchitis alone, or complicated with pneumonia, in - - - - - 11

(q) By "black tongue" in - - - - - 2

(r) Of the entire number above the age of 12, there was of females - - - - - 102

(s) Of these the primary attack (f) was followed by peritonitis, independent of any condition of pregnancy, but in those who menstruated, in - - - - - 15

(t) By secondary erysipelas of vulva and contagious parts, in - - - - - 5

By same of mamæ, in - - - - - 1

Of those under 12 years of age there was bled, (a bad case, but recovered.) - - - - - 1

Under that age (12) there died not bled. - - - - - 2

Between the age of 12 and 21 there were bled on 1st day, 17  
of whom died 0

" " " " " were bled on 2d " 12  
of whom died 0

" " " " " were bled on 3d day and after 4  
of whom died 1

Of the remaining 8 not bled, none died.

Between 21 and 31 there were bled on 1st day 21  
of whom died 0

" " " " " 2d day 15  
of whom died 1

" " " " " 3d day and after 9  
of whom died 2

Of remaining 7 not bled, there died - - - - - 2

Between 31 and 40 there were bled on 1st day 19  
of whom died 0

" " " " " 2d day 15  
of whom died 2

" " " " " 3d day and after 13  
of whom died 2

Of the remaining 11 not bled, there died - - - - - 2

Over 40 there were bled on 1st day 11, of whom died 1

" " " " " 2d day 14, " " 2

Of the remaining 18 not bled, there died - - - - - 9

#### PUERPERAL PERITONITIS.

Cases, - - - - - 20



Of these, there had erysipelas at time of accouchment

4, of whom died 2

Disease (peritonitis) forming before accouchment 1

Attacked on 1st day after— 2, of whom died 2

“ 2d “ “ 6, “ “ 3

“ 3d “ “ 6, “ “ 2

“ 7th “ “ 1, —

9

Of all there were bled in from 3 to 12 hours after

attack 12, of whom died 3

Bled on 2d day and subsequently 6, “ “ 4

Not bled — — — — 2, “ “ “ 2

9

Every one who recovered was mercurialized.

In two of these cases the infant was attacked with erysipelas of pudenda and neighboring parts on third day after birth, and died. Three were still born.

## ARTICLE II.

*An Essay on the Therapeutic Virtues of the Euonymus Atropurpureus, or Wahoo.* Written for the Degree of Doctor of Medicine in the “Rush Medical College.” By ELLWOOD ANDREW, of Attica, Indiana. Presented Feb. 2, 1846.

EUONYMUS ATROPURPUREUS.

Spindle Tree.

Burning Bush.

Wahoo. Radicis cortex. The bark of the root.

Class, Petandria. Order, Monogynia.

Flowers axilate in small open umbels, four equal stamens, anthers two lobed, one pistil, four equal petals, calyx four equal sepals; the petals and sepals same color, dark red. Berries of a bright scarlet color, fleshy, four lobed, at right angles; each lobe containing one seed in capsule. Branches opposite and four angled. Leaves opposite on short foot stalks, ovate acuminate, veined and finely serrated, color, dark green on the upper surface, lighter beneath.

The wahoo is a beautiful and ornamental shrub, attaining from six to twelve feet in height, and may be found through-

out the Northern and Middle, and perhaps over the whole of the United States. It delights in a rich and loose soil; and is generally found on the margins of running streams, on hill sides, &c. It flowers in June, and the fruit matures in September.

This shrub is liable to be mistaken for the young grey ash, which it much resembles in its general appearance. It may, however, be easily distinguished in autumn, by the fruit remaining on the tree long after the surrounding foliage has disappeared. This shrub is covered with a thin, and for the most part, smooth epidermis, which is of a dark ash color, gradually becoming green, however, on the younger branches. The roots, which are small and numerous, are covered with a bark of a pale cineritious color. The taste of the bark of the root is a pleasant bitter, slightly pungent. It possesses a faint odor. Both odor and taste much resemble that of *Ipecacuanha*. The bark is tough and difficult to pulverise. Water and alcohol extract its virtues. There are diversities of opinion among botanists in reference to the proper botanical name of the wahoo. Some regard it to be the *ulmus alata*, which also bears the specific name of wahoo. I am satisfied, however, that it does not belong to that family, and I have chosen, in accordance with the views of Dr. Kennicott, and other able botanists, whom I have consulted, to consider it as the *E. Atropurpureus* in preference to the *E. Americanus*, as it answers more nearly to the description of the former than the latter variety.

When this substance was first known as a remedy, it is impossible at this time to determine. It has, however, long enjoyed a reputation as a valuable expectorant in pulmonary diseases. For this purpose a variety of preparations of it have appeared from time to time, usually in the form of syrups.

As a Tonic, it enters largely into the various popular compounds, known as bitters, and as such, used in various conditions of the system; such for example, as rheumatism, indigestion, want of appetite, &c., and is extensively used during convalescence from autumnal intermittents. It is frequently exhibited in the form of decoction, as a diaphoretic and diuretic in obstruction of the urinary organs. It is an exceedingly popular remedy as a cathartic in a great number of diseases, where a remedy of this class is indicated. In autumnal fevers



this substance is frequently administered by the country people, without regard to the form of fever or the stage of the disease, and generally with success, at least in such cases as may be cured by active cathartics.

The frequent exhibition of this substance by the community, and the benefits that uniformly appeared to result from its use, have gradually brought it to the notice of physicians, many of whom have been induced to prescribe it in various forms of disease. From the opinion of a number of physicians, who are in the habit of prescribing the wahoo, no doubt can be entertained of its virtues as a remedy, and of its claims to a place in the *Materia Medica*.

The physiological action of the wahoo appears to be two-fold, which depends upon its tonic and cathartic properties. As a tonic, its action resembles that of the vegetable tonics in general; producing, when administered in small doses, an increased cutaneous and pulmonary secretion, and giving tone and vigor to the system generally, without manifesting any marked stimulating properties. When thus administered, it excites, in a peculiar manner, the secretion from the urinary organs. There are few remedies that possess this quality in a higher degree. Should the dose be increased beyond what is requisite to produce a diuretic effect, it acts as a mild cathartic or laxative, leaving the bowels in a soluble condition.

In no instance, however, is its action more distinctly manifested than when given in full doses. When thus administered, it acts as a powerful hydrogogue cathartic, producing copious fluid evacuations, which frequently continue for twenty-four or thirty-six hours after its administration. Notwithstanding its powerful hydrogogue effects, it does not produce any drastic effects; its action being attended with little or no pain. Another peculiarity of this substance is, that when its use is continued for a length of time, it does not, like most remedies of this class, lose its hydrogogue effects. On the contrary, it appears to be as prompt and efficient in its action as when first administered.

From the foregoing remarks, it will be seen that the wahoo possesses medical virtues of no ordinary character, and that it strongly recommends itself to the attention of the profession. From the brief views that have been given of its mode of action upon the system, it will not be difficult to determine when

its administration may be indicated, or when it may be prescribed with advantage.

In plethoric habits, when there is a determination of blood to the head, the wahoo may be given in cathartic doses, and will be found to dispel all the unpleasant symptoms.

The catarrhal affections of the air passages, which are of so frequent occurrence in our climate, may frequently be promptly relieved by the free use of this remedy. In chronic affections of the lungs, attended with cough, this article has long been used and is frequently prescribed with advantage.

A number of instances have fallen under my own observation, where this remedy has been used in chronic coughs from various causes, used with more benefit than any other. In these cases it would seem to possess some specific action over the mucous membrane of the lungs; throwing off the disease by promoting a healthy secretion from that surface.

It has been found of much service in the treatment of various forms of disease, depending on a miasmatic influence. In rheumatic inflammations, depending upon this cause, it may be given with decided advantage. Here, as well as in all other cases, where there is much inflammatory excitement, bloodletting, either general or local, should be premised.

Of the multifarious forms of disease in which this substance has been administered, there are none in which its beneficial effects are more strikingly exhibited, than in dropsical effusions. In cases of this kind, where the amount of fluid is so enormous or the effusion is so rapid, that remedies ordinarily employed, are wholly inadequate to the task of removal, or inadmissible from the great debility they produce, or from their continued use become inert, the wahoo would seem to be particularly indicated; filling as far as it is possible for one remedy to do, all the indications.

From the testimony of a number of physicians, who have had occasion to use this article in these as well as other forms of disease, the following remarks from Drs. Evans and Buell, of Indiana, are well worthy of our attention, combining, as they do, in a few words the opinion of these gentlemen, who have had much experience in its use. Dr. Buell remarks, after speaking of its tonic and cathartic virtues, "in witnessing these properties of the wahoo, I did not hesitate to prescribe it in the various forms of dropsy that came under my



notice, in conjunction with such other remedies as each particular case seemed to require, and I have had much reason to be pleased with its effects, and at no time to regret its administration." He considers it particularly indicated in effusions in the cellular membranes, and further remarks, "that in these cases, it will rarely disappoint our most sanguine expectations." In hydro-thorax and ascites, he cannot speak with as much confidence, having failed to perform a *cure* in both these forms of disease, but as they are frequently dependant upon a lesion of some important organ, in which all other remedies fail in a cure, he therefore does not consider them as a test of the therapeutic virtues of the wahoo. He only reports one case in which this article was administered without *any* benefit, and this was a case of anasarca, resulting as the sequelæ of scarletina, which had been long neglected. The presence of febrile symptoms, he does not deem an objection to the use of this article in cathartic doses, more particularly should depletion first be employed. He is confirmed in this opinion by the fact before alluded to, that it is frequently used by the country people, as a domestic remedy in the cure of autumnal fevers, and generally with the happiest results in those cases that demand active purging. The views of Dr. Evans strongly corroborate the remarks of Dr. Buell. Dr. Evans remarks, "from the observations that he has been enabled to make, he is decidedly in favor of its use in most cases of dropsy, where an evacuant is indicated." In speaking of its physiological action, he continues, "one drachm of the bark of the root, gathered in the fall or winter, (which is the proper time) infused in six ounces of water, will, if given at four or six equal doses every two hours, have a decided diuretic effect, unless it should operate on the bowels. In doses of twice or thrice this amount, it acts as an energetic hydrogogue cathartic, producing a number of evacuations. It is a remarkable property of this medicine, that the frequent exhibition of it as a cathartic, does not, as is the case with most, if not all the remedies of this class, destroy its hydrogogue effects. I have given it every other day for two weeks, and the last dose seemed to produce the same effects as the first." He also speaks of its tonic properties. "From these properties, I regard it as one of the very best remedies that can be given in dropsies where the system is much prostrated,

and the accumulation of the watery fluids rapid. In one case of ascites and hydrops pericardii, with general anasarca of several months standing, which evidently was attended with a miasmatic influence, originating in an attack of remittent fever, and attended with enlargement of the spleen, I had reason to attribute the cure to the effects of wahoo, given every other day in cathartic doses, in conjunction with quinine and the application of blisters over the region of the spleen."

Another and severe case of ascites, hydro thorax and general anasarca, which occurred in an individual of a chlorotic habit, came under the notice of Dr. Hays, in which the specific action of this remedy in this form of disease, was most strikingly exhibited. The patient, a young lady in whom the catamenia had never been instituted, had long been afflicted with rheumatic inflammation of almost the whole fibrous tissue of the body, which gave way to, or rather was the cause of the dropsical effusion. The system was much prostrated, the accumulation of fluids rapid, and so abundant as to seriously impede respiration; causing frequent fits of suffocation, which threatened the life of the patient. In this case the wahoo was the only remedy that appeared sufficiently powerful for the removal of the fluids, without at the same time impairing the strength of the patient, and notwithstanding the patient died, as might have been expected, no doubt could be entertained that life had been prolonged and rendered more endurable by the free use of this remedy; the dropsical effusions having been entirely removed long before death, and the patient dying from other causes. It has been seen elsewhere, that this article is particularly adapted to dropsical effusions of the cellular membranes. There are a great number of diseases, which produce serous effusions into this tissue of the body; in a majority of cases, perhaps, the effusion is produced from the same cause, namely: that of atony or debility of the system. A disease in which this infiltration frequently obtains, is scarlatina. Again, in badly treated cases of autumnal fevers, or in cases that have not been treated at all, we not unfrequently find in addition to the anasarca which is present, a derangement of the bowels, want of appetite, &c. In all these cases a careful examination into the history and cause of the disease, and a just discrimination in the selection of remedies, will at once determine whether this remedy is applicable to



the case, and in many cases it will doubtless prove of much service.

The foregoing are a few of the many cases, that might be adduced, where the wahoo has been used in dropsical effusions. Its value, as a remedy in these cases, appears to depend on its power of exciting the secretions from the alimentary canal; and through this means causing the rapid absorption of fluids from other parts of the body. In many cases of serous effusions, the removal of the fluids is the only indication to be fulfilled. In such cases this remedy may be considered of primary importance. Other cases again occur, in which the dropsy is only a symptom of the disease, the effusion depending upon a lesion of some organ, over which this remedy has no control. In such cases this article should be considered only as an adjuvant, and be used in conjunction with such other remedies as the primary disease might seem to demand. Cases indeed frequently occur in which the wahoo is wholly inadmissible, requiring remedies of the most opposite character. In those, for example, in which the disease is produced by the long continued and excessive use of spirituous liquors, where there is intestinal disease, &c., this remedy would be of doubtful efficacy, and should be prescribed with caution.

It has been heretofore remarked that this remedy had been used successfully in the treatment of autumnal fevers. I am not aware, however, in what particular form of fever its use has been of most benefit; neither am I aware of any physician who relies on it in the commencement of these diseases. Cases are not wanting, however, where its empirical use has been of decided benefit in the commencement of remittents and intermittents. When prescribed in the commencement of these diseases, it should be exhibited with caution and be premised with blood-letting, or such other remedies as the case might seem to require. Cases have occurred where its too liberal use has produced hyper-catharsis. In the latter stages of these diseases, where a tonic and aperient is indicated, it may be resorted to in many cases with decided advantage; this point, however, has been sufficiently dwelt upon elsewhere.

The proper time for collecting the root of the wahoo is late in autumn or in the winter. No particular directions are ne-

cessary for its preparation, farther than to observe that it should be collected at a proper time, cleansed by washing, and the bark removed from the root and dried. The drying process may be conducted either by the heat of the sun in the open air, or by the aid of a moderate heat from a stove.

The mode of administering this substance may vary according to the indication to be fulfilled, or the convenience of administration. When administered for its tonic properties alone, the tincture may be used. This may be prepared of any strength that may be desired. From one to two ounces of the bark may be added to a pint of proof spirits, and permitted to digest for a sufficient length of time, which will afford a tincture of sufficient strength for ordinary purposes. Of this from fʒi to fʒss may be taken at once, and repeated as often as occasion may require.

The infusion is perhaps the best form in which to administer it with a view to obtain its diaphoretic and diuretic effects. To prepare this, an ounce of the bark may be infused into a pint of boiling water, of which from fʒi to fʒiii may be given at stated periods.

The decoction is the form which is usually given as a cathartic, and is prepared by adding from one to two ounces of the bark to a pint of boiling water, and continuing the heat until the strength of the root is extracted. Of this from fʒss to fʒii may be taken, and repeated at intervals of from two to four hours, according to the urgency of the case, until its full cathartic effects are produced. Seldom, however, will it be necessary to repeat more than the second or third dose. The only unpleasant symptoms that I have known to arise from its use, has been hyper-catharsis when it was exhibited in too large doses. Some care, therefore, should be taken to prevent this occurrence. Should it occur, however, the remedies ordinarily employed in such cases, will be available. Another manner in which this substance may be given is in the form of an extract, which has recently been prepared by G. W. Carpenter, of Philadelphia, and which is much extolled for its remedial virtues and facilities of administration. I have, however, been unable to procure a specimen for examination, and am unable to speak of its physical properties.



PART II.—REVIEW.

ARTICLE III.

*Homœopathy, Allopathy, and "Young Physic."* By JOHN FORBES, M. D., F. R. S., Editor of the British and Foreign Medical Review, etc. etc. Philadelphia: Lindsay and Blakiston. 1846. pp. 124. (From the Publishers.)

This work is a reprint, in a separate form, of an article of the above named Review, and is marked by the clearness and vigor characteristic of the style of the editor, and by a liberality, fairness, and indulgence towards the Homœopathic doctrines, carried, we think, even to excess. Of this, however, our readers shall be the judges, as we lay before them an analysis of the contents of the book.

Samuel Hahnemann, the founder of the system, was born at Misna, in Upper Saxony, in the year 1755, and died at Paris only three years since, in the eighty-eighth year of his age. "No careful observer of his actions or candid reader of his writings, can hesitate for a moment to admit that he was a very extraordinary man—one whose name will descend to posterity as the exclusive excogitator and founder of an original system of Medicine, as ingenious as many that preceded it, and destined, probably, to be the remote, if not the immediate cause of more important fundamental changes in the practice of the healing art, than there have resulted from any, promulgated since the days of Galen himself."\* He is further described as a man of genius, learning, great industry, and energy, deserving of being ranked among the greatest systematists and theorists. In reference to the character of Hahnemann, to judge from his writings, it appears singularly enthusiastic, sincere, upright, and honorable; we see no reason to doubt his good faith. He was the object of unjust persecution, obliged to take refuge in a foreign country and deserves, for that reason alone, to be well treated by mankind. But we are not able to perceive by what title he is to be ranked among the great theorists of medicine. As a *theorist* his views have always appeared to us whimsical and absurd in the highest degree. That we are not influenced in this opinion by prejudice, may be inferred from the following passage from the preface to the American edition of the Organon, written by one of the leading advocates of the system. "For myself I am generally considered as a disciple and adherent of Hahnemann, and I do indeed declare I am among the most enthusiastic in doing homage to his greatness, but, nevertheless, I declare, also, that since my first acquaintance with homœopathy, down to the present day, I have never yet ac-

cepted a single theory of the Organon, as it is there promulgated."\*

The first idea of the system is said to have found its way into the head of the author in the following manner. Having occasion, about the year 1790, to experiment upon himself with cinchona, he thought he discovered that it possessed the power of exciting symptoms like those of ague, hence arose in his mind the dawn of more rational therapeutics, "may not the power of the bark to cure ague," said he, "depend upon its power to excite in the healthy body a similar disease." He then proceeded to try the effects of other remedies on himself, and always, it is said, with the same result. Examining then the records of medicine in reference to the effects of poisons and strong drugs, and finding everything, as he believed, confirmatory of his views, he hesitated no longer but "promulgated the grand and universal law, that every (dynamic) disease is best cured by that medicine which is capable of producing, in the healthy body, similar symptoms, or a similar disease, or as it is stated more briefly, *similia similibus curantur*, like are cured by like, i. e.: homœopathically."

This is the foundation of his system, and in order to cure a disease according to it, it is only necessary to find a medicine capable of exciting in the healthy body, symptoms nearly the same as those noticed in the disease. He gave as the *rationale* of the cures thus effected the following, viz: that of two similar actions developed in the same part, the stronger destroys the weaker.

The principle and explanation being thus given, we come to the method of administering the remedies. This is done in *infinitesimal* doses, or in quantities so small as to be entirely inappreciable to the senses. This does not appear to be necessary to the homœopathic principle, but was adopted because the practitioner should only desire to excite a *medicinal disease*, slightly greater than the natural one, so that when the latter has been once cured, but little trace of the former should remain. It appears, that for this purpose the attenuation of the medicine can scarcely be carried too far if it be well chosen. "It is of little consequence that this attenuation may go so far as to appear impossible to common physicians, whose minds are only conversant with gross material notions." Although this attenuation of the dose did not necessarily result from the homœopathic principle, yet it has now been so universally adopted, as to be considered an essential part of the practice."

Nor is this to be wondered at, for if in acute diseases we administer medicines in active doses upon that principle, the results may easily be supposed less favorable, than when

\* Preface to Second American Edition, page 15.





or *psora*, common itch. This latter he considers to be the origin of seven-eighths of all the chronic diseases and to be only capable of being cured by certain articles called anti-psoric.

This is a brief and imperfect, but yet as far as it goes, a correct view of the principles and theories of homœopathy. In order, however, to understand it more fully it must be known that the followers of this system attach but little, if any, importance to the morbid changes of the fluids or organs, or what, in ordinary language, is termed pathology. Disease is looked upon as spiritual, and the operation of medicines regarded in the same light. "The vital principle, as a spiritual dynamis, cannot otherwise be assailed and affected than in a (dynamic) spiritual manner, neither can such morbid disturbances, or in other words, such diseases, be removed by the physician, except in like manner, by means of the spiritual (dynamic virtual) countervailing agency of the suitable medicines acting upon the same vital principle."\*

Dr. Forbes (whose arrangement we mostly follow, giving but an abstract of his views,) then proceeds to examine into its truth.

1st. Is it true that the cinchona is capable of producing an ague, or something nearly resembling it? Few will hesitate to pronounce that it possesses for mankind at large, no power of the kind, and the same is true of most homœopathic remedies in common use. The symptoms ascribed to these, and of which there are several hundred for one single article, are either imaginary, accidental, or have no resemblance to those of the disease they are employed to cure. "By what means," says Hahnemann, "do they drown the distant roar of the enemy's cannon which carries terror into the breast of the soldier? By the deep-mouthed clangor of the big drum."† And a number of illustrations equally applicable are adduced.

2d. Is it true that substances, inert in large doses, acquire a wonderful activity when reduced to quantities beyond the power of imagination distinctly to conceive? "To be called upon to believe that the decillionth of a grain of oyster shell or charcoal is capable of producing hundreds of the most formidable symptoms, and of curing, as by magic, the most inveterate diseases, while we take ounces, nay pounds, of the same substances into our stomachs, with no other convenience than its mechanical bulk, seems so gratuitous an outrage on human reason, that the mind recoils instinctively from the proposition."

We pass over a number of theoretical points as the psoric-origin of most chronic diseases, &c., neither shall we spend

\* Hahnemann. *Organon*, p. 59.

† *Op. Cit.* p. 89.



time in bringing forward objections or arguments against it. This were a waste of time, nor should we have devoted to it even this attention, had it not been that its claims, as a practical system, are less known than are its doctrines among the medical profession. Here again, we think that Dr. Forbes has made his representations of its results more favorable than justice would strictly warrant. It is no doubt true that "the disciples of Hahnemann are spread over the whole world." That "there is not a town of any considerable size in Germany, France, Italy, England or America, that does not boast of possessing one or more homœopathic physicians, not a few of whom are men of huge respectability and learning." It may also be true that "the Professor of Pathology in the university of Edinburgh has become a convert to its doctrines." But it is not the less true that the methods of cure recommended in its standard works, and the cases reported by its advocates, are altogether worthy of the doctrines. Take, as an example the following from the *Organon*, page 14. Speaking of affections of the stomach with acrid eructations, he says "these gastric affections of dynamic origin are commonly produced by a disturbed state of the mind, (grief, freight, anger,) cold, exertion of the mind or body immediately after eating, and sometimes even after a temperate enjoyment of food. Neither the tritrate of Antimony nor Ipecacuanha are suited to the purpose of removing this dynamic aberration." "But if the patient should only smell once to a globule of sugar of the size of a mustard seed, impregnated with the thirtieth dilution of *pulsatilla*, he is then cured in the space of two hours."

The question, however, may be considered in a different point of view, and putting aside the absurdity of the supposition that such means are capable of affecting the system, what are the evidences that cures are effected by it. On this point there is absolutely no means of judging at present. To afford sufficient data for this purpose, it would be necessary, that of a great number of patients placed in similar hygienic circumstances, a part should be treated "homœopathically, and the others be treated apparently in the same manner but with fictitious globules." Experiments of this kind, conducted on a large scale, can only determine the absolute potency or impotency of this plan of treatment, for whatever number of persons recover under its application, there is no means of knowing whether the same result would not have taken place without any medical treatment.

There are, however, at the present time, numbers of cases reported, treated homœopathically as well as otherwise, from which some judgment may be formed of the comparative value of this with other varieties of treatment. Among these, the most reliable part is the report of cases treated at the hos-

pital of the Sisters of Charity, which was opened in Vienna, in 1832, and since 1835 has been under the care of Dr. Fleischmann, who treats all patients homœopathically. From the beginning of 1835 to the end of 1843, there were treated 6551 patients, with the following results:

Remaining from 1834,	-	-	-	27
Admitted,	-	-	-	6524
Cured,	-	-	-	5980
Dismissed uncured,	-	-	-	112
Died,	-	-	-	407
Remaining,	-	-	-	50

The following extract will show the result in some of the more important chronic and acute diseases.

	Admit'd.	Cured.	Uncured.	Died.
Abscess of the Brain,	3			3
Cancer of Stomach and Uterus,	5		2	3
Ascites,	14	10	1	3
Fever, excluding Typhus,	1036	1007	1	17
Typhus Abdominalis,	819	669	2	140
Pneumonia,	300	280		19
Bronchitis,	15	15		
Pleuritis,	224	221		3
Phthisis,	98		27	71

It will readily occur to our readers that such tables, destitute of classification, date of admission, length of time required for cure, age, sex, symptoms by which each disease was recognized, are destitute of value as regards positive and accurate results. There are circumstances, too, which render the statements still more doubtful, such, for example, as the disproportion between the number of cases of bronchitis and those of pneumonia. But waiving all objections, and taking the cases as of average severity, what are the results? Certainly not more favorable than would be found with the ordinary method of practice. It would be useless to institute a close comparison between these results and those obtained elsewhere, under different modes of treatment, and in circumstances quite different. But it is seen at a glance, that of the diseases usually accounted incurable, as Cancer, Abscess of the Brain, and Phthisis, all the cases are either fatal or dismissed uncured, which is usually the same.

Of acute diseases, as Pneumonia, &c., the ratio of mortality is nearly the same as that usually observed under the ordinary modes of treatment. So that Dr. Forbes is disposed to admit, upon the authority of the table, of which the above is a small part, that the results are nearly the same as are found in ordinary practice. We would here add a word in regard to other trials which have been made of this practice.

It is known that in 1835, Andral administered homœopathic medicines at La Pitié to a large number of patients with-



out sensible effects. At St. Petersburg, the Medical Council after having tried, declared it as either useless or dangerous in cases where active treatment is required. At Naples, the public authorities revoked, after a trial of forty-five days, the permission which had been given for the establishment of a clinic of homœopathy. At Paris, besides those of Andral, trial was made of it in the words of M. Bailly, at the Hotel Dieu, with medicines prepared in Germany at the same establishment where Hahnemann procured his supplies. They were without effect, and the homœopath who directed them, retired after four or five months trial. At Lyons, in 1830, Dr. Pointe, professor of Clinical Medicine at the Hotel Dieu, put at the disposition of Dr. Gueyard, thirty beds. This latter, in presence of several physicians and pupils, examined the patients, prescribed the medicines, regimen, &c., and after 17 days of trial he gave it up.\*

Dr. Forbes, after the report of Dr. Fleischmann, passes in review the cases given by Dr. Henderson in a work entitled "An enquiry into the Homœopathic practice of Medicine." We will not follow him in this part of his work. It is sufficient to give his conclusion, "that the amount of success obtained by Dr. Henderson in the treatment of his cases, would have been considered by ourselves very satisfactory, had we been treating the same cases according to the rules of ordinary medicine."

"In making these admissions in respect to the instances of treatment supplied by Drs. Henderson and Fleischmann, we wish formally to guard ourselves against being supposed to admit" "that the result of the homœopathic treatment generally, is as successful as the ordinary treatment generally." "On the other hand, we have not a little positive evidence to prove that it has often failed to cure in cases where, according to its principles and the alleged experience of its professors, it ought to have cured, and in which allopathy did effect a cure."

"The guiding principle of homœopathy appears to us to be of that character which must render its exercise very injurious to medicine as a branch of science. Based, as it is, on mere extrinsic, secondary phenomena, or symptoms, and exclusively engaged in the search for and adaptation of specific remedies to such phenomena, we cannot but regard it as calculated to destroy all scientific progress in medicine, and to degrade the minds of those who practice it." With such views of homœopathy, how are to be explained the cures effected under its ministration. Our author, in common with all judicious and observing men, attributes them to the power of nature, a power which he seems to think is greatly overlooked and undervalued by medical men of the present day.

\* Dict. de Medicine, vol. xv, p. 358.

He even goes into a lengthened argument to show that nature can cure diseases without the interference of art. For ourselves we do not think this necessary, since every observing physician knows that, not only among savages, but even among civilized men, a great majority of all the diseases which occur, are not subjected to any medical treatment. Pneumonia, Pleuritis, Bronchitis, and all the more serious diseases, occur daily among the laboring classes, and especially those at a distance from physicians, and get well without medical aid. Many of these have been treated with simple diet and drinks, and found to terminate as favorable as under ordinary treatment, witness Typhoid Fever, Phthisis, etc. In this point of view, he thinks homœopathy likely to be of immense advantage to medicine, by enabling us to judge of the power of nature to cure diseases, and of their course when not interfered with by art.

We cherish no such expectations of the benefits to be derived from homœopathy. All makers of systems of late, if not always, have retarded medical science, or caused it to retrograde. Witness Broussais. Nor can it be otherwise at present. The time has not arrived for completing the edifice, but only for patiently gathering suitable materials.

If these doctrines are so absurd as is shown by Dr. Forbes, can any good be expected to result from them? If mankind are better without medicine, were it not wiser to say so at once, rather than abuse them with doses incapable of having any effect. If there were advantage to be gained from such a course, the profession might have reaped it long ago, for it was long since stated that "medicine is the art of amusing the patient while nature cures the disease."

The humblest physician who employs, in curing diseases, all the resources within his reach, we respect. But if he chooses to desert the only track which can lead to a full knowledge of the human system and its morbid states, and range himself under the banner of homœopathy, hydropathy, botanic, &c., or advocate the virtues of a "panacea" elixir of life, and other preparations of the same kind, we look upon his efforts as lost to science and humanity, however advantageous they may be to himself. It was this view, we presume, which influenced the Supreme Court of the State of New York in deciding homœopathy to be quackery. Far from expecting that it will be of service to science or mankind, we see clearly that it can only obstruct the progress of the former, that valuable lives will be, as they have been, sacrificed by hundreds and thousands upon the shrine of a false theory, and to the love of gain. Nor is this consideration the less painful from the fact that other systems have also had their victims. That antimony and calomel, and violent medicines of all sorts, have been used from habit, routine, and ignorance, until they



also have destroyed life and health. It is impossible, in many parts of our own country, not to see that it is but one error following another; that homœopathy is but a reaction against the excessive use of drugs. And this leads us to the essential part of the work we are reviewing, the consideration of the present state of medical practice, and the reforms which are necessary. It is for the purpose of laying these before our readers, as well as in part to make them acquainted with the progress of various medical doctrines, that we have noticed this work so much in extenso. We will only add that the difficulties at the present time, do not, in our own judgment, rest so much with the science, as the modes in which it is taught and practiced. The following is the concluding part of the work to which we referred.

"It would be presumptuous in us, in the present stage of the question, to attempt to give even a formal outline or sketch of the Reform in Practical Therapeutics which appears so necessary, and which we believe to be impending. This is a work which can only be the result of mature reflection, and of the labor of many years and many hands. All which we can think of attempting at present, is to set down, almost at random, a few of the various considerations that press upon us, touching the many things to be thought of and done, the manifold evils to be abated, the manifold benefits to be achieved, by the enthusiastic and active spirits whom we have heretofore sportively personified under the name of 'YOUNG PHYSIC,' and to whom we look with confidence for the consummation of the great REFORMATION which assuredly will come.

"In submitting these suggestions to criticism, we would request, that their extemporaneous and undigested character be borne in mind. All of them, we believe, to be true and just; many of them of high importance; and although more mature reflection may prove some of them, at least, to be neither the one nor the other, we shall, nevertheless, not regret having written them. They may excite others to consider this momentous subject, and thus elicit from better minds, thoughts worthier of remembrance and fruitful of greater things.

#### COGITANDA—EXCOGITANDA—AGENDA.

"1. To endeavor to ascertain, much more precisely than has been done hitherto, the natural course and event of diseases, when uninterrupted by artificial interference; in other words, to attempt to establish a true Natural History of human diseases.

"2. To reconsider and study afresh the physiological and curative effects of all therapeutic agents, with a view to obtain more positive results than we now possess.

"3. To endeavor to establish, as far as is practicable, what

diseases are curable and what are not; what are capable of receiving benefit from medical treatment and what are not; what treatment is the best, the safest, the most agreeable; when it is proper to administer medicine, and when to refrain from administering it; &c. &c.

"4. To endeavor to introduce a more philosophical and accurate view of the relations of remedies to the animal economy and to diseases, so as to dissociate in the minds of practitioners the notions of *post hoc* and *propter hoc*.

"The general adoption by practitioners in recording their experience, of the system known by the name of the *Numerical Method*, is essential to the attainment of the ends proposed in the preceding paragraphs, as well as in many that are to follow.

"5. To endeavor to banish from the treatment of acute and dangerous diseases, at least, the ancient axiom, *melius anceps remedium quam nullum*, and to substitute in its place the safer and wiser dogma—that where we are not certain of an indication, we should give nature the best chance of doing the work herself, by leaving her operations undisturbed by those of art.

"6. To endeavor to substitute for the monstrous system of Polypharmacy now universally prevalent, one that is, at least, vastly more simple, more intelligible, more agreeable, and, it may be hoped, one more rational, more scientific, more certain, and more beneficial.

"7. To direct redoubled attention to hygiene, public and private, with the view of preventing diseases on the large scale, and individually in our sphere of practice. Here the surest and most glorious triumphs of medical science are achieving and to be achieved.

"8. To inculcate generally a milder and less energetic mode of practice, both in acute and chronic diseases; to encourage the Expectant preferably to the Heroic system—at least where the indications of treatment are not manifest.

"9. To discountenance all active and powerful medication in the acute exanthemata and fevers of specific type, as small-pox, measles, scarlatina, typhus, &c., until we obtain some evidence that the course of these diseases can be beneficially modified by remedies.

"10. To discountenance, as much as possible, and eschew the habitual use (without any sufficient reason) of certain powerful medicines in large doses, in a multitude of different diseases, a practice now generally prevalent and fraught with the most baneful consequences.

"This is one of the besetting sins of English practice, and originates partly in false theory, and partly in the desire to see manifest and strong effects resulting from the action of



medicines. Mercury, iodine, colchicum, antimony, also purgatives in general and blood-letting, are frightfully misused in this manner.

"11. To encourage the administration of simple, feeble, or altogether powerless, non-perturbing medicines, in all cases in which drugs are prescribed *pro forma*, for the satisfaction of the patient's mind, and not with the view of producing any direct remedial effect.

"One would hardly think such a caution necessary, were it not that every-day observation proves it to be so. The system of giving and also of *taking* drugs capable of producing some obvious effect—on the sensations, at least, if not on the functions—has become so inveterate in this country, that even our *placebos* have, in the hands of our modern doctors, lost their original quality of harmlessness, and often please their very patients more by being made unpleasant!

"12. To make every effort not merely to destroy the prevalent system of giving a vast quantity and variety of unnecessary and useless drugs, (to say the least of them,) but to encourage extreme simplicity in the prescription of medicines that seem to be requisite.

"Our system is here greatly and radically wrong. Our officinal formulæ are already most absurdly and mischievously complex, and our fashion is to double and redouble the existing complexities. This system is a most serious impediment in the way of ascertaining the precise and peculiar powers (if any) of the individual drugs, and thus interferes, in the most important manner, with the progress of therapeutics.

"We are aware of the arguments that are adduced in defence of medicinal combinations. We do not deny that some of these combinations are beneficial, and therefore proper; but there cannot be a question as to the enormous evils, speaking generally, resulting from them. Nothing has a greater tendency to dissociate practical medicine from science, and to stamp it as *a trade*, than this system of pharmaceutical artifice. It takes some years of the student's life to learn the very things which are to block up his path to future knowledge. A very elegant prescriber is seldom a good physician. And no wonder. Tailors, barbers, and dancing-masters, however learned they may be in the externals of gentility, are not expected to be fine gentlemen or men of fashion.

"13. To endeavor to break through the routine habit, universally prevalent, of prescribing certain determinate remedies for certain determinate diseases or symptoms of diseases, merely because the prescriber has been taught to do so, and on no better grounds than conventional tradition.

"Even when the medicines so prescribed are innocuous, the routine proceeding impedes real knowledge by satisfying the mind, and thus producing inaction. When the drugs are

potent, the crime of mischief-making is superadded to the folly of empiricism. In illustration, we need merely notice the usual reference, in this country, of almost all chronic diseases accompanied with derangement of the intestinal functions, to 'affection of the liver,' and the consequent prescription of *mercury* in some of its forms. We do not hesitate to say, that this theory is as far wrong as the practice founded on it is injurious; we can hardly further enhance the amount of its divarication from the truth.

"14. To place in a more prominent point of view the great value and importance of what may be termed the physiological, hygienic, or natural system of curing diseases, especially chronic diseases, in contradistinction to the pharmaceutical or empirical drug-plan generally prevalent. This system, founded as it is on a more comprehensive inquiry into *all* the remote and exciting cause of disease, and on a more thorough appreciation of *all* the discoverable disorders existing in all the organs and functions of the body, does not, of course, exclude the use of drugs, but regards them (generally speaking) as subservient to hygienic, regimenal, and external means,—such as the rigid regulation of the diet, the temperature and purity of the air, clothing, the mental and bodily exercise, &c., baths, friction, change of air, travelling, change of occupation, &c. &c.

"15. To endeavor to introduce a more comprehensive and philosophical system of Nosology, at least in chronic diseases, whereby the practitioner may be led less to consider the name of a disease, or some one symptom or some one local affection in a disease, than the disease itself—that is, *the whole* of the derangements existing in the body, and which it is his object to remove, if possible.

"16. To teach teachers to teach the rising generation of medical men, that it is infinitely more *practical* to be master of the elements of medical science, and to know diseases thoroughly, than to know by rote a farrago of receipts, or to be aware that certain doctors, of old or of recent times, have said that certain medicines are good for certain diseases.

"17. Also to teach students that no systematic or theoretical classification of diseases, or of therapeutic agents ever yet promulgated, is true, or anything like the truth, and that none can be adopted as a safe guide in practice. It is, however, well that these systems should be known; as most of them involve some pathological truths, and have left some practical good behind them.

"18. To endeavor to enlighten the public as to the actual powers of medicines, with a view to reconciling them to simpler and milder plans of treatment. To teach them the great importance of having their diseases treated in their earliest stages, in order to obtain a speedy and efficient cure; and,



by some modification in the relations between the patient and practitioner, to encourage and facilitate this early application for relief.

“19. To endeavor to abolish the system of medical practitioners being paid by the amount of medicine sent in to their patients; and even the practice of keeping and preparing medicines in their own houses.

“Were a proper system introduced for securing a good education to chemists and druggists, and for examining and licensing them—all of easy adoption—there could be no necessity for continuing even the latter practice; while the former is one so degrading to the medical character, and so frightfully injurious to medicine in a thousand ways, that it ought to be abolished forthwith, utterly and for ever.

“20. Lastly, and above all, to bring up the medical mind to the standard necessary for studying, comprehending, appreciating, and exercising the most complex and difficult of the arts that are based on a scientific foundation,—the art of Practical Medicine. And this can only be done by elevating, in a tenfold degree, the preliminary and fundamental education of the Medical practitioner.”

D. B.

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#### ARTICLE IV.

*Fragments of Medical Science and Art.* An Address delivered before the Boylston Medical Society of Harvard University. By HENRY JACOB BIGELOW, M.D. Published by the Society. pp. 54. (From the Author.)

To know one's ignorance is the first step to improvement; an axiom as fully applicable to a science as to an individual. Were it possible that the true condition of Medical Science could be known to all its votaries, not only would it advance with more rapid strides towards perfection, but its advance would then be real, while alas! it is now, but too often, apparent. When we see the once apparently established theories of age after age, crumbling into atoms and leaving but a mass of rubbish to impede the progress, and to be cleared away by future or present laborers, we are naturally lead to enquire into the causes of this want of durability. The subject matter of the above Address is, in general terms, an exposition of these causes, and of the true mode of conducting pathological investigations. The Address commences with a review of the Baconian system of philosophy, and its applicability to medical science. In speaking of the sources of false systems the author remarks:

“It does not require patient investigation and laborious thought to frame a false system of philosophy, to deduce an

ingenious theory from a few facts; but truth unveils herself to constancy alone, to persevering love, of which few are capable. Nor is it the cause of error to which man, once enlisted, clings with such tenacity; he clings to his own cause; his own philosophy; with the determination of a chief or the zeal of an adherent; pride animates and prejudice arms him; it is the cause of human passion. It is not then wonderful that there are so few minds able to divest themselves of human weakness, to acknowledge error and abandon cherished fallacy, to love truth for its own sake; and to find in its discovery a source of elevated happiness."

A few remarks upon false generalization, showing the fertile soil producing the many quackeries of the age, we may also quote.

"The inductive method also teaches, that if truth lies in facts, we have only to collect facts to discover it. But Bacon knew how ready the mind is to pursue some false light into the morass of error; 'to start off to generalities, that it may avoid labor.' To insure accuracy, therefore, facts are to be written down and subsequently counted. In Bacon's own words, 'we must form tables and coördinations of instances, upon such a plan and in such order that the understanding may be enabled to act upon them.'\* All this is now obvious and undoubted. False theory is not the error of our day, nor of our scientific community. But while in medicine, the value of facts is recognized, possibly overrated, their application is a fertile source of error.

"Open any medical journal of the last week, or of last year, and you shall find an account of some new, successful remedy; and yet another year shall obliterate this record, and substitute new methods equally infallible. There is error either in the facts or in the induction. Here is Bacon's quaint exposition of this fallacy. 'It was well answered by him who was shown in a temple the votive tablets, suspended by such as had escaped the peril of shipwreck, and was pressed as to whether he would then recognize the power of the gods, by an inquiry, 'But where are the portraits of those who have perished in spite of their vows?''† We listen to partial or imperfect evidence. Impressed with an idea, we accept only the facts whose tendency confirms our notion. In the words of Bacon,‡ 'It is the peculiar and perpetual error of the human understanding to be more moved and excited by affirmatives than negatives, whereas it ought duly and regularly to be impartial; nay, in establishing a true axiom' (or law) 'the negative instance is the most powerful.' These natural tendencies of the mind, then, show the necessity of insuring accuracy by writing; 'the understanding being as incapable of acting on such materials of itself, with the aid of memory

\* Nov. Org. B. 2, Aph. 10. † Id. B. 1, Aph. 46. ‡ Id. B. 1, Aph. 45.



alone, as any person would be of retaining and achieving by memory the computation of an almanack.' 'Yet meditation,' says Bacon, and with almost equal truth might it have come from Louis, 'has hitherto done more for discovery than writing, and no experiments have been committed to paper.'\*

"In its most general sense, induction is not only applicable, it is essential to the discovery of all law in nature. The student admits this, and yet at some time or other most of us have felt a certain undefined doubt whether the inductive method was adapted to the wants of medical science."

After premising a general view of the inductive system of philosophy, the author proceeds to discuss certain questions of interest in connection with medical science, "and first, How much of medical science is drawn from fact by process of induction, and how far are we able to anticipate this process, and to foretell certain facts by means of others?" In regard to the three forces governing the laws of nature, viz: "mechanical, chemical, and, in a more limited degree, polar force," the inductive system is indisputably applicable, and the only true mode of scientific investigation, and, of course, where they are found to have a bearing upon medical science, that system must be followed in the investigation of medical laws. But in addition to these forces in medical science "there are vital forces at work which counteract the most obvious tendencies of the material particles of the human fabric. What prevents the arteries from being dyed red, or the body from falling to the ground, or in short the whole mass from decomposing? It is vital force, whose power to hinder the most obvious effects of other force must, till we comprehend its nature, render all prediction in the vital science fallible."

We continue to quote the author, as his own language is as much condensed as the nature of the subject will permit and we are loath to leave out one word of it.

"There are but few sciences in which we have detected the machinery which is the immediate cause of their phenomena; and although, in the words of Bacon, 'It is rightly laid down that true knowledge is that which is deduced from causes,'† many sciences like ours are made up merely of aggregated facts, without reference to the manner of their production. Laws of phenomena are the sum and expression of knowledge already acquired; they open no new region of knowledge. Why do we know that lymph is and will be common on the tonsils and in the air tubes? Because we have observed it. But what does this tell us of the intestinal canal, or other mucous surfaces, where it is comparatively rare? It tells us nothing; we know only what we have known. Our knowledge is limited by the fact; and with blind reliance we trust in

\* Nov. Org. B. 1, Aph. 45.

† Nov. Org. B. 2, Aph. 2.

nature's constancy, and in the accurate adjustment of her vast machinery. Far different is the science which studies the detail of the great machine, which understands its complex movements and detects its variations, which wrests from resisting nature her great secret, and fortels, ages beforehand, the workings of her universal laws.

"Yet have these laws of phenomena a great and undisputed value. The facts, in the words of Kepler, 'are collected into one fagot,' though no scrutiny has enabled us to penetrate their substance. Laws of phenomena detect and assert the similarity of facts, they point out their common element, and draw from each a thread by which they are suspended from a common centre. In time these threads are twisted into cords, which in their turn are woven into some great fabric. They distinctly state a proposition which is to be subsequently proved or disproved, and supply a series of equations from which the value of the common  $x$  is finally deduced. In the instance, for example, of polarity, a force now in process of discovery, we thus trace the connexion of the ray of the setting sun as it was reflected from the windows of the Luxembourg with the phenomena of crystallization, chemical affinity, magnetism and electricity. Wild and straggling facts of unknown growth are here laid side by side. They are brought into the domain of science, and the wedge is at last entered which lays them open and reveals their hidden entity.

"The chief employment of the medical philosopher is to establish these laws of phenomena; to ascertain the frequency with which certain facts occur with other facts; to point out the element most constant to a wide range of phenomena; the very ends which the inductive method of Bacon, and the numerical method of Louis, its medical application, teach us to attain it with certainty. Medical diagnosis and medical prognosis obviously grow out of rigid induction.

"But let us note an important distinction in the present application of this return to diagnosis and to therapeutics. If we err in our principles of diagnosis, it is of comparatively little consequence. If we choose to consider sore-throat a necessary effect of the cause which produces the other symptoms of scarlet fever, or the eruptions essential to the exanthemata, when they are really only incidental to them, science alone suffers. The inductive method offers us the surest results we can obtain, even though these are uncertain. But if we err in therapeutics, it is not science alone, it is the patient that suffers. Suppose it is conclusively shown, that when a hundred patients are bled in a certain disease, fifty-five always recover; and that when these hundred patients are not bled, only fifty get well; and suppose we bleed our hundred patients; we shall be very likely to kill somebody who, otherwise treated, would have proved a useful member of society.



Science gains her five per cent, but humanity loses a man or a woman or a child. Such treatment may do for armies, where one man is as good as another; but does not answer for individuals, by nature prone to over-estimate their personal consideration.

“The fact is, the diseases we compare, and whose similarity we affirm, are very dissimilar. Every case of disease varies in its character from every other case of the same disease. It varies in its intensity, its complications, and its tendencies. It varies with the constitution of the patient, and with external influences. It varies in the rapidity of its march, and in the duration of each symptom. The same treatment, therefore, affects single cases very differently. But it is a singular principle in nature, that differences tend to neutralize each other in the long run. That while individuals deviate, like the asteroids in their revolutions, equally above and below a fixed line, the tendency of the mass is to an average always constant. This principle equalizes the number of births and deaths; of male and female children; it makes the annual proportion of dead letters to other letters always the same in the English post-office; and in exactly regulating the laws of mortality, it guarantees success to life insurance companies founded on proper computations. But it does not tell us the sex of the child, nor the length of any man's life, nor the chance any given letter has of being called for. Men vary above or below a certain healthy standard. If in some disease this standard is too high, it must be lowered, but in this process some one whose scale of mortality is already low will be submerged, yet we cannot tell who this individual will be, until we know what constitutes vital force. No rule in therapeutics applies indiscriminately to any other than a theoretically fixed standard of disease; if we can arrive at such an ideal standard by only averaging the mass, the rule is applicable only to this mass; and so long as the practice of medicine is for the benefit of individuals, such a principle will be of limited utility to the physician. To give fair play to this equalizing tendency, induction should be based upon a broad range of facts. Narrow induction is the bane of medical science, and the physician who infers that nature will gain her equilibrium in three or five successive facts, and argues from them, might with equal wisdom, in a game of chance, bet upon *rouge*, because it has won but twice, while *noir* has gained three times.

“But let no one argue for these reasons the inadequacy of the inductive method. It is ignorance alone that hinders us from availing ourselves of it. If medicine were an exact science it would be not only applicable but necessary to therapeutics, and as science advances, and we approach nearer and nearer this stage of medical knowledge, induction becomes more and more indispensable. And even now the self-ad-

justing tendency of nature furnishes us truth in its relation to the mass. The inductive method is of undisputed value in determining, for example, whether a supposed remedy has or has not a value. More than this it tells us very nearly what this value is. If fifty patients in a hundred have recovered from a certain malady under the use of carbonate of iron, and fifty in a hundred have got well without it, I decide this remedy to be nearly inert in this disease. If the proportion of the recoveries under the remedy much exceed this statement, I infer that the medicine possesses some degree of efficacy; if the number of recoveries is much less, I am equally sure it is injurious. And I am right in all these suppositions. But there is another quality of the inductive method, and I am not aware that it has been observed, which requires that the results derived from it, at least in therapeutics, should be of unequivocal numerical force. The inductive method speaks of coincidence and not of cause. The lesion of Peyer's glands is coincident with febrile symptoms in typhoid fever, and so also is sore throat in scarlet fever; but we have only probable evidence whether either of these conditions is a cause or an effect. Now this relation is essential in therapeutics, we require that a remedy should seem to be a cause of convalescence, and not merely a coincidence. If with Hildanus I anoint the axe that made the wound, and fifty-five instead of fifty per cent. of wounded knights recover, does the additional five per cent make me believe in the efficacy of the "*unguentum*?" Can I believe in the therapeutic agency of dead man's touch, or

"Slips of yew silvered in the moon's eclipse,  
Nose of Turk and Tartars's lips."

Reason is against it, in spite of any possible and obvious cajolery of the inductive method. In the connexion of remedy and disease, we must see a probable, or at least not impossible relation of cause and effect; and whence shall we derive this evidence? It must be supplied by the mind of the observer, and based either upon previous general or medical experience, or else upon the evidence of the immediate experiment, which must, for this end, be of overwhelming force.

To be applicable even to the mass, the evidence should be of weight, and it has been shown that unless the evidence be conclusive, and hold good of all the individuals upon whom the experiment is tried, we have no right to apply to individuals that which is true only of the mass. We can follow no indiscriminate rule in therapeutics. We can only pause and weigh the indications, and decide each case upon its own requirements. It was a common saying of the late Dr. Baillie, 'Learn your profession well, and practice it on rule of common sense;'\* and it cannot be denied, that in the therapeutics

\* Observations in Medicine, Marshall Hall, Chap. 2.



of the present day, the physician must rely to a great extent on the resources of his judgment. And what is judgment? It is the faculty which God has given man to supply the place of certain knowledge. Because invading pneumonia must be bled, will you bleed the wretch already lingering on the borders of the grave? Judgment is the act of common reason; it is a logical decision based upon the evidence of facts; and is this faculty impossible to you? Shall not your hundred cases of fever, analysed, combined, weighed, sifted in the wards of a hospital, be to you at least as the 'experience' of a hundred cases, scattered among the engrossing occupations of twenty years? Do not struggle with the crushing incubus, distracting you with its monotone, that judgment and experience come only with age. Is medical science the only one beyond the reach of active intellect? Is the mind to be depleted, and the vital force exhausted down to the comprehension of the vital science? But I am encroaching upon ground I intend to occupy at the latter part of these remarks."

Pages 19 to 32 discuss the value of hypotheses, and show in a clear and lively style, the proper mode of their construction and their abuse. The danger of abuse our author correctly refers to the devotion of the investigator to his favorite theory,—the feeling of parentage—as may be seen in the following:

"But facts are not to be perverted. Their use is to test, to prove or disprove, not to confirm theory. The error of former science, the error of recent medicine, was not that hypotheses were made, but that they were constructed to be proved; that truth was warped and misapplied; that facts were prostituted in the cause of ignorance and prejudice. Philosophers made a show of listening to the evidence of nature, while they aimed to prove a verdict, which was signed and sealed before the trial. Such, in our science, were the 'inflammation' of Broussais, the febrile theory of Cullen, the stimulating system of Rasori, and many other theories, which first stated a proposition, and then collected facts to support and confirm, not to test it."

The success of great discoverers in unraveling the intricate mazes of scientific phenomena, is referred to their inveterate love of truth, which lead them to reject, at once, one hypothesis, the moment it is contradicted by fact.

The Address goes on to show the character of mind most successful in building up hypotheses, and conducting them to correct conclusions. We have, upon this part of the subject, but space for a few short remarks of our author. He says, "I have tried to show that it is not the ability to sum up the common elements of facts arranged in tables, nor to verify hypothesis, that adapts a mind for observation. I will add that is not the mere power to make a theory. The theory

must be of a certain quality; a probable if not a successful one. \* \* \* \* \* "But while

facility in forming probable theory is distinctive of scientific genius in the mind of the philosopher, the love of truth is steadfast and predominant. No ingenuity of reasoning, no parental affection for theory, no human passion, turns it from the contemplation of reality. It never shrinks from the untold labor of investigation; it is hard upon the tracks of truth, and staunch in its pursuit."

The value of *facts* and the uses to be made of them, forms the next subject of our author, and, while he recognizes their value as the means of establishing a starting point for the inductive philosopher, he condemns the tendency of the age to amass facts without connecting them with causes, or their relations to medical laws. In this regard our author gives the French school the credit of superiority. His advice in this connection, if followed by contributors to medical periodicals, would, we think, give to their communications a value which they do not, in general, possess.

"But facts are not the end of science, and you are not to amass them blindly. Have a purpose in your investigations; let it be either of self education, of verifying for yourselves what is already established, of forming an hypothesis, or of testing one. Do not think that impartiality in observation requires that a fact should stand alone; should offer no indication of the existence of any other fact. Rather endeavor to find some true relation between a symptom and its immediate cause, between a sign and any alterations of structure or of function, between one disease or lesion and another. Here, if I may say it, there seems to me to be a difference in the tendencies of medical knowledge in this place and in the French school.\* The connection of medical phenomena is there, if possible, determined. Every fact is labelled with its scientific value. There, a true relation is, if possible, indicated; here, if possible, it is evaded. The details of a medical case may be narrated or recorded promiscuously and without order, or methodically, to illustrate its bearings upon certain points. Either history will embrace all the facts; but while one supplies only the crude material, the other shapes the block and designates its place in the future edifice, and leaves to future science only the labor of adjusting it. The ill digested observation is in fact comparatively useless. Medical discovery has generally been the work of individuals, who had their hypotheses and have analyzed facts in some especial relations, and not of societies, who have collected them indiscriminately. But if any discovery is ever to be thus made, if observations thus accumulated by different individuals are ever to be collected, and studied together, especially when we remember the diffi-

\* See Appendix C.



culty and almost impossibility of analyzing a wilderness of medical facts matted and felted together into a dense and tangled mass, let us be ready to advance the labor in our humble spheres, at least in showing what points our observations are intended to illustrate, and in adopting a methodical and condensed arrangement which shall facilitate their future comparison."

The Address, in defining the position of Medical with other departments of Science, acknowledges its imperfections, and ascribes it to the difficulty of recognising the modes of action of the *force of life*; that while the "astronomer's facts repeat themselves after a determinate interval; the chemist occasions his at will, the pathologist can only wait for promiscuous phenomena, whose occurrence is amenable to no known influences."

The usefulness of our profession is set forth as follows:

"Have I seemed to limit too narrowly the range of our professional usefulness? Will it be said, that I am treacherous to the cause of medical science, in confirming, by the evidence of an adept, what was already suspected by the uninitiated? The dignity of our science will not be diminished by a recognition of its real abilities. It is its actual condition, and not the avowal of it, that can alone add or detract from its real character. If our science has advanced little, in comparison with some others, it is because it is built upon them, and because its problems are combinations of the most difficult and unexplored of their laws. But if it is among the least advanced, it is among the most important. It wields many of the physical conditions of human existence. It has averted physical calamities, which would by this time have anticipated whole ages of aggregated human life. Were it for its single power of controlling sensation, our profession would be necessary to the civilized world. But we can do far more than this. The physician can foretel the duration of most acute diseases; and apart from the accidents of life, he promises health. He alone can judge, from a wide combination of symptoms, of the actual condition of the patient. He condemns without appeal. He can sometimes arrest disease, and can often modify symptoms, or mitigate their severity. In its true form, our science is already indispensable to man."

We have already extended our review of this admirable address much further than we had intended, but such has been our appreciation of its excellence, our admiration of the sterling truths which it contains, that our labor has not been in selecting passages of value and interest, but to determine what we should be most willing that our readers should lose, and extended as have already been our extracts, we cannot close without quoting some selected paragraphs of the portion

of the Address, devoted to advice, as to the conduct of medical practitioners, their duties to the profession, their patients and themselves.

“True boldness is that which a sense of competency maintains. Weigh your ability, and decide whether you are competent to a responsible position. Do not confound with the question of ability, that feeling of repugnance, which every young man has in undertaking an untried duty. With a well grounded confidence, justice to yourselves demands the sacrifice of vague doubts and nervous hesitation. Endeavor to know in medicine what is to be known; and while you save yourselves much of the embarrassment which arises from a want of confidence, you will spare yourselves the necessity of dissimulating ignorance. There was a time, and that not far distant, when the grave and professorial air was a necessary part of our professional attainment; when an expression of profound sagacity hung as a veil before the mysterious recesses of the mind; and an air of deprecating merit seemed to restrain and to dam up unknown depths of wisdom. A good physician generated an oppressive atmosphere, which stifled vivacity and animation. His speech was oracular and final; and as he listened, his surcharged countenance expressed, like that of the bird of wisdom, a severe and unblenching appreciation.

“Such was, and sometimes is, the mask of ignorance; but there was much in the position of bygone generations of physicians which justified pretension. The medical man was surrounded by those who leaned upon his art with blind reliance, and exacted from him superhuman skill; and he assumed the infallibility thus spontaneously offered. Such a false position is not ours. We owe it to those who have prostrated their best energies in our cause, that there is now something to be known, for which a severe and professional demeanor is no longer a substitute. The physician may now discourse on medical subjects honestly, and hopefully; and the offspring of his knowledge, the positive amelioration of man’s physical condition, justifies him in avowing the inadequacy of his art, without fear of derogating from its dignity, or of impairing confidence in himself. I well remember my surprise when a medical student, on hearing one who is eminent among us, proclaim, in answer to some medical question, that ‘he did not know.’ It was the ignorance of knowledge. Such downright, avowed medical ignorance, is rare; still it is worth while to learn what is to be learned, if only to avoid the error of those who, rightly believing there is much they do not know, pretend to know much that cannot be known.” \* \* \* \* \* “The actual desire of people to be deceived has become classical; and to respond to this, in the words of Johnson, ‘there is in human nature a general inclination to make people stare; and every



wise man has himself to cure of it, and does cure himself.\*

"If the admiration of ignorant or weak minds is an object of your ambition, minister to this vitiated and uneducated taste; encourage credulity; invest your art with technicalities; exhibit your results, and studiously hide your methods. But if you desire to place your science upon a level with other sciences, aim with Bacon 'to make wonders plain, and not plain things wonders;† lay it open to the world, and strip it of the repulsive garb of false pretension. Common expediency at least teaches this. The day is fast going by when the intelligent and the instructed attribute to the physician superhuman sagacity. The physician is now often asked for his premises, by people who think themselves possessed of sufficient logical abilities to follow him to his conclusions; and it is because the patients of this generation insist upon being told why, and not what, that the despotic sway of our professional ancestors is gradually escaping from our grasp. If you ever acquire in these days a reputation for infallibility, it will be after you have shown how you are infallible. All this is in accordance with the spirit of the age, which rules enlightened reason, and not ignorance, and persuades by the authority of facts, and not by its own authority.

"When, therefore, you examine a medical case, neither shake your head with the negation or the affirmation of profundity, nor indicate by your countenance the perplexity of overwhelming thought; but enter upon your duty with even an unprofessional cheerfulness, content to use the finite powers which God has given you. Spread out the facts; show which way they point. Do not say what your opinion is, but why it is so; give the evidence and all its bearings; push the diagnosis to its full extent; but remember there is a point at which the imperfection of our knowledge bars advance, and beyond which all is surmise and uncertainty. It is a common error, especially among students, to suppose that the physician must always arrive at some decision with regard to the character of a lesion or disease. It is not so, a diagnosis is often uncertain. The evidence points equally in two directions, and in such a case, ignorance alone asserts impossible knowledge."

\* *ibid.* \* *ibid.* \* *ibid.* \* *ibid.* \*

"Content to exert a healthful influence within the immediate circle of your art, do not waste your breath in exposing error beyond the limits of real medicine; in holding up to indignation the heartlessness which supplies straws to the dying man, and tortures him with false hope, until his palsied grasp has yielded its last coin;—still less in pointing out the fallacy of those medical pseudo-sciences which last a few short years, and die of inanition; which rapidly replace each other, with nothing in common but their friends, vociferous in their

\* Boswell, 1769.

† Pref. to Nat. Hist.

constancy to each in health and strength, but in its waning years quietly deserting it, for some more profitable alliance. These fungous parasites of science are the natural food of weakness and credulity; a necessary to the vitiated taste of the more cultivated, or a luxury to vanity, which gratifies itself in detecting and appreciating what is obvious only to few. As well might you deprive such believers of their daily sustenance, as displace from their minds their hygienic theory. With the sound and intelligent no such attempt will be needed; with others none will avail. But in your own immediate art, scrupulously guard the barrier which professional convention has erected against the unsound in morals or in science. You cannot be too cautious in taking measures to advance your individual interest, which may be popularly confounded with those resorted to by the unprincipled.

\* \* \* \* \*

“Introduce nostrums into every human art, but do not aspire to the notoriety which deals in secrets, and takes out letters-patent for the common offices of Christian charity. Humanity revolts at this shallow artifice of those who cannot gain the eminence ever accorded to superiority. If art is sometimes thus prostituted by those who feel no interest to maintain its dignity, thank God there is an inner temple, beyond whose precincts no sacrilegious selfishness has ever penetrated. Science radiates truth, like light, upon the world. The contemplation of the order and harmony of nature, the intercourse of truth, warms the heart, as it enlarges the intellect, and elevates man into a sphere where self is sacrificed. Great discoverers in science have been ever philanthropic; that they have shed their knowledge upon the world as freely as they have devoted their best days to its pursuit, is a fact so universal and infallible, that he who now attempts to conceal his pretended discovery, exposes to the intelligent, with his own selfishness, the fallacy of his pretensions.

“Lastly, do not lose sight of your science in your own intercourse with art. \* \* \* \* \*

“Indolence, the routine of art, perhaps the demands of hard necessity, shall engross many of us in our narrow spheres, and bend us from the pursuit of knowledge. But in the struggle and turmoil of active life, do not forget your debt to science, which ever toils in quiet, unremittingly; heedless alike of its own transitory interests, and of the world around; whose highest aim is, year after year, to add its new contribution to the sum of human knowledge, which promotes by its example the best interests of our profession; which is content to find its happiness in a tranquil intercourse with the great truths of nature, and the manifestations of unerring sagacity.”

J. V. Z. B.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE V.

*New Elements of Operative Surgery.* By ALF. A. L. M. VELPEAU, Surgeon of the Hospital of La Charité, &c., &c. Carefully revised, entirely remodelled, and augmented with a treatise on Minor Surgery, illustrated by over 300 engravings incorporated with the text, accompanied with an Atlas in quarto of twenty-two plates, representing the principle operative processes, surgical instruments, &c. First American from the last Paris edition. Translated by P. S. Townsend, M.D., late physician to the Seamen's Retreat, Staten Island, New York. Augmented by the addition of several hundred pages of entirely new matter, comprising all the latest improvements and discoveries in surgery, in America and Europe, up to the present time. Under the supervision of Valentine Mott, M.D., Professor of the Operations of Surgery with Surgical and Pathological Anatomy, in the University of New York, &c., &c. In three volumes Vol. II. J. & H. G. Langley. 1846. pp. 992. (From the Publishers.)

It is necessary to add but little to the title page to give the reader all the information necessary, at this moment, in relation to this work. The part by Velpeau is, or should be, already familiar to surgeons every where, but this, voluminous as it is, is nearly equalled in size by the additions of the translator under the direction of Dr. Mott. We have not yet had time for a full examination, but shall attempt, in our next No., to present to our readers a review of the more interesting additions which have been made to the original work.

In the meantime, it is scarcely necessary to recommend the work of Velpeau & Mott to all Surgeons. The third volume and atlas are announced for publication during the approaching Autumn. The price of the whole will be but \$10.

D. B.

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*A defence of the Medical Profession of the United States:* being a Valedictory Address to the graduating class at the Medical Commencement of the University of New York. Delivered March 11, 1846, by MARTYN PAINE, A. M., M. D., Professor of the Institutes of Medicine and Materia Medica in the University of New York. &c. New York. 1846. pp. 24. (From the Author.)

The great enemy against whom Professor Paine volunteers to defend the Medical profession, is Dr. J. N. Davis, in connection with the New York State Medical Society. The former, who is styled "a young man in the township of Bing-

hampton," having originated the plan for a National Convention, adopted by the latter, in which Professor Paine thinks he has discovered a jealousy of the existing medical schools. He particularly objects to the suggestion which has been made, of the propriety of increasing the term of instruction in our Medical Colleges. "It is oppression towards the poor for the sake of crippling our Medical Colleges," and again, "there is an *aristocratic* feature in this movement of the worst omen, however the spirit by which it is prompted may belong to the agrarian policy." The Professor is of opinion that the medical profession is pretty well off in this country, much better in regard to its "practical habits" and "successful treatment of disease," than any other country whatever, although he admits that "such evils" (as those complained of) "exist, \* \* \* and I also agree as to their becoming appropriate subjects for united deliberation."

Whether such a spirit as that ascribed to the State Medical Society actually exists, we have no means of knowing, but should not be at all surprised to find it were so. Not having means of competing on equal terms for the chairs in medical schools, it seems to us quite natural that the "young man in the township of Binghamton," and other young men in different townships, should think that there were some improvements still to be made in a country where each citizen is entitled to equal rights and privileges. On the other hand it is not surprising that those who hold high and profitable situations in the medical schools, should see little to be done in the way of improvement.

Let there be established a system of *concours* or public trials, where all may enjoy equal advantages in competing for valuable situations, and jealousies of medical schools will cease to exist. Holding the interests of the great body of the profession above that of schools or societies, (if they conflict,) thinking also, that however advanced we may be, *progress* should still be our watchword, we have desired to see assembled a body like that contemplated, composed of members from every part of the country. Whether its action will be beneficial or otherwise must be seen and judged of by the medical public at the proper time.

In the mean time, without feeling any direct interest in the controversy likely to ensue, we think the author of this address assumes a position which he is not entitled exclusively to occupy, for we are happy to know that there are many even in the far west who are not surpassed in zeal for the true "honor and dignity of the profession." "And now, *again*, gentlemen, for the third time, I stand up *alone* in the broad expanse of America, in an open defence of the honor and dignity of the profession." D. B.



## PART IV.—EDITORIAL DEPARTMENT.

## ARTICLE VII.

We present our Journal, to our readers, in the present No., in a new form, much enlarged, and, we hope, in every respect, more worthy of their patronage. We have long felt that our space was too contracted to allow us to do justice, either to the advance of Medical Science, or to our readers. At length, in accordance with the expressed wish of a large number of our subscribers, and our own long cherished desire, we feel warranted in extending our limits threefold; and that our contributors may not experience the necessity of condensing into a compass, too small to do justice to their subject, the communications with which we hope to be favored by them, we have thrown two *monthly* numbers into one *bimonthly*, each containing 96 pages. This will afford us ample space for the discussion of all subjects of interest that may present themselves. As a number of our subscribers and anticipated contributors are residents of the State of Indiana, in which there has, as yet, no medical journal been issued, and the services of Dr. John Evans having been secured as cœditor, we have altered the title of our journal to express the better its more extended sphere, and will, hereafter, issue it simultaneously at Chicago, Illinois, and Indianapolis, Indiana. Our labor also, will be further divided by the association of *four* cœditors, as seen by our title page. By this division of labor we hope to improve the Journal in spirit and practical value. Additionally, a number of accomplished medical gentlemen in our own and neighboring States and Territories, have kindly acceded to our request to become regular contributors to our pages. By this combination of effort we hope to make our Journal adequate to the wants of the North-Western section of the United States, in which region we have been the first, and as yet, the only exponent of the profession.

J. V. Z. B.

## ARTICLE VIII.

## NATIONAL MEDICAL CONVENTION.

DR. J. V. Z. BLANEY:

Dear Sir,—In obedience to the last resolution appended to

the accompanying report, I send it to you, hoping that you will give it an insertion in the April No. of the "Illinois Medical & Surgical Journal."

It is now certain that a full Convention will be held, and we hope the Medical College at Chicago, as well as the State of Illinois, will be fully represented therein.

Very respectfully, yours, &c.,

N. S. DAVIS,

Binghamton, Broome Co., N. Y.

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The Committee appointed at the last Annual Meeting of the New York State Medical Society, to carry into effect a resolution passed at the same meeting, inviting a National Medical Convention in May next, would respectfully report as follows:

In the early part of last season, the Committee through their Chairman, addressed a circular, containing the preamble and resolutions of this Society, with such comments as were deemed advisable, to all the State Medical Societies and Colleges in the United States, as far as the existence of such Societies and Colleges could be ascertained. And in those States where neither State Societies nor Colleges existed, a circular was addressed to some leading member of the profession, inviting him to take measures for having his State represented in the proposed Convention. Replies to these circulars and letters have been received from the following officers of Medical Societies and Colleges, and private members of the profession, viz: Drs. W. W. Morris, of Dover, Delaware State; A. H. Buchanan, of Tennessee; W. P. Johnston, of Washington City; T. T. Hewson, R. M. Huston, and W. E. Horner, of Philadelphia; Luther Ticknor, of Connecticut; W. H. McKee, of North Carolina; E. H. Pearlee, of Hanover; Paul F. Eve, of Georgia; J. H. Thompson, of New Jersey; J. W. Davis, of Indiana; A. Twitchell, of New Hampshire; J. W. Draper, A. H. Stephens, Willard Parker, and C. A. Lee, of New York; J. Drake, of Ohio; L. M. Lawson of Kentucky; and Professor Carpenter of Louisiana. And delegates have been freely pledged from Societies and Colleges in Maine, New Hampshire, Connecticut, New Jersey, Delaware, District of Columbia, South Carolina, Georgia, Mississippi, Louisiana, Kentucky, Ohio, Indiana, and New York. The medical schools of Philadelphia are the only ones from whom replies have been received, that decline sending delegates and giving a hearty support to the proposed measure. Nearly every medical journal throughout the Union, has also, not only favorably noticed, but warmly commended the proposition for holding such a convention. There are some Institutions from whom no replies have been received, but from information obtained from other sources, there is



good reason for believing that most, if not all these will be represented by the appointment of delegates, as soon as they are fully assured that the convention *will be* held. It will thus be seen that in far the larger part of the Union, the invitation of the society has met with a prompt and hearty response from the profession; and it is with much regret that we find even a few Institutions declining to take any part in so important a movement. But when we consider the wide extent of our territory, and the great number of our Institutions, all engaged, we should hope, in a generous rivalry with each other, the expression in favor of a convention, is certainly more unanimous and more promising of good than could have been anticipated. Indeed the leading and influential members of the profession have long felt the necessity of some national action, some central point of influence, around which the active and choice spirits of the whole profession can rally; from which may be made to radiate an elevating, healthful, and *nationalising* influence over the whole country.

Hence it only remains for this Society to carry out the work it has so nobly commenced. The Faculty in the New York University have very generously tendered to this society the use of any room or rooms in their College edifice, that may be desired for the Convention to meet in. Some State Societies and Colleges have already appointed their delegates, while others have expressed a desire that this Society would fix the number to be sent from any one Society or College.

For the purpose of furthering the objects in view, your Committee would respectfully submit the following resolutions, viz:

1. *Resolved*, That the preamble and resolutions, passed by this Society at its annual session Feb. 6, 1845, did not contemplate the appointment of delegates to the National Convention, from county or merely local societies, in those States where delegates *are* appointed by a regularly organized *State* Society.

2. *Resolved*, That as some Societies and Colleges have already appointed their delegates, therefore the number to be appointed by any one of these Institutions should be left *entirely* to the discretion of the appointing body.

3. *Resolved*, That sixteen delegates be appointed to represent this Society in the proposed National Convention, viz: two from each senatorial district in the State.

4. *Resolved*, That this Society accept the offer of the Faculty in the New York University respecting their *rooms*; and consequently that the members of said National Convention are invited to assemble in the College edifice of the New York University, at 10 o'clock, A. M., on the *first Tuesday* in May next.

5. *Resolved*, That a Committee of three be appointed to

continue the efforts to further the objects of the proposed Convention, and to exert all their influence to make it truly *National* in *composition* and *action*.

6. *Resolved*, That the above Committee be authorized to invite the Superintendants of Lunatic Asylums throughout the several States to attend the Convention.

7. *Resolved*, That the Committee be further authorised and enjoined to send a copy of this report, together with the accompanying resolutions, and the action of this society thereon, to all the medical journals in the United States, with a request that they publish the same on or before the first of April next.

N. S. DAVIS,  
JAMES McNAUGHTON, } *Committee.*  
PETER VAN BUREN, }

Albany, Feb. 3, 1846.

The foregoing report was accepted, and the resolutions unanimously adopted. Sixteen delegates were appointed according to the third resolution; and the above named Committee re-appointed in obedience to resolution fifth.

N. S. DAVIS, *Ch'n. Com.*

We lay before our readers the foregoing report of the committee of the New York State Medical Society, with much pleasure; nor are we at all surprised at the extensive and almost unanimous approval which has been given to the plan proposed. If we consider that a large proportion of the scientific men of the country belong to the Medical Profession—that individually they are possessed of the high respect of the communities in which they reside, while as a body their influence upon the interests, welfare and public mind of the nation is almost unfelt, it must be evident that something more is necessary to bestow upon them as a class, the rank to which they are justly entitled. This we have often in our humble sphere stated. It is *Union, Association*,—an organization by which our common wants and interests may be made known and protected.

We look to this Convention to effect these objects in whatever way may appear most feasible after due deliberation. Difference of views is of course to be expected, but these, it is believed, may be harmonized, where the objects to be attained and the interests to be favored, do not clash. There is, nevertheless, a single point in the proceedings of the New York State Medical Society, which it was easy to foresee might give rise to objections, and even prove a source of embarrassment to the action of the Convention. We allude to the ap-



pointment of delegates from each Senatorial district by the central society, instead of allowing these to be elected by the different county societies. That these latter might in some instances claim the privilege of appointing delegates was to be expected, and we learn from the *Buffalo Medical Journal*, that such is the case. It is not our object to express an opinion in regard to the wisdom or justice of the course adopted by the State Society, we should greatly regret that anything should arise capable of interfering with the harmonious action of the Convention, but do not at present see reason to apprehend such a result.

We have used every effort to have the profession of this State fully represented. At a late meeting of the Trustees of Rush Medical College, Dr. Brainard was appointed delegate, with power to associate with himself any of his colleagues who might be able to attend, and we have urged upon the Medical associations known to exist in the State, the importance of being also represented. To what extent our recommendations have been, or may be effectual, we are at present unable to say.

D. B.

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#### ARTICLE IX.

##### ANOTHER MEDICAL COLLEGE IN PHILADELPHIA.

An Institution with the name of "Franklin Medical College" has been chartered by the Legislature of Pennsylvania, to be located in Philadelphia, making the fourth Medical School in that city. "It is obvious," says the announcement, "that there must be limits to the size of classes that can be usefully instructed in the demonstrative branches of medicine, and those who are acquainted with the Medical Schools of Philadelphia, will recognise the propriety of an extension of the facilities now offered."

We have frequently thought that medical men, who so often complain of the want of respect shown to the profession, should be careful themselves not to set the example. Have there been no physicians in America deserving the honor, that Philadelphia should adopt for her Medical Colleges the names of Jefferson and Franklin, already sufficiently honored in this respect? Certainly Wistar and many other of her sons deserve well to be remembered when new Medical Colleges are

to be christened. The following are the names of the faculty of the new Institution. D. B.

PAUL BECK GODDARD, M. D., *Anatomy and Histology.*

C. C. VAN WYCK, M. D., *Principles and Practice of Surgery.*

MEREDITH CLYMER, M. D., *Principles and Practice of Medicine.*

JOHN BARCLAY BIDDLE, M. D., *Materia Medica and Therapeutics.*

DAVID HUNTER TUCKER, M. D., *Obstetrics and Diseases of Women and Children.*

LEVIN S. JOYNES, M. D., *Physiology and Legal Medicine.*

JAMES B. ROGERS, M. D., *General and Organic Chemistry.*

JOHN BARCLAY BIDDLE, M. D., *Dean of the Faculty.*

JOSEPH LEIDY, M. D., *Demonstrator of Anatomy.*

#### ARTICLE X.

OBITUARY.—Died at Detroit, Michigan, on the 11th ult., LIEUT. E. R. LONG, M. D., U. S. Army.

The above obituary notice, and the remarks which follow, we extract from the Buffalo Medical Journal. We join with its editor in his regrets, and heartily also in his tribute to the memory of our deceased friend and late pupil. The Profession has indeed lost in him a member whose place cannot easily be filled, and science has lost a votary, but for his too early decease, destined to do much to advance her honor and aid her progress. J. V. Z. B.

“Justice to our own feelings and to the feelings of many of our readers, claims some tribute to the memory of our departed friend, whose decease it is our painful duty to record. Having been a resident in this city for several years previous to the present winter, he has left a large circle of attached friends who mourn his loss with a greater depth of sorrow than ordinarily appertains to the sundering of the ties of friendship by the fell destroyer. Unassuming and gentle in his disposition, scrupulously regardful of the opinions and feelings of others, without the least ostentation or affectation, possessing extensive and solid acquirements, united with a refined taste, he instinctively, as it were, won the respect and affection of all who knew him. We doubt if he ever had an enemy, or fell under the imputation of aught which would appear inconsistent with the most exact principles of justice and honor. They, however, who were fortunate enough to possess his intimacy can best appreciate the loss, which not alone his kindred and



friends, but society has sustained. His life was an exemplification of the domestic, social and christian virtues. These diffused around him a genial influence, while his silent example invited and encouraged imitation.

"The Medical Profession have much cause for regret in his untimely death. Being graduated at West Point, he had been connected with the army for about fifteen years. The profession of arms, however, did not satisfy his wishes. Having a predilection for medicine, he was a diligent votary of its several departments for the last six years of his life. The winter of 1844-5 he passed at Chicago in attendance upon the medical lectures in that city, and received at their close the degree of M. D. As a characteristic instance of his faithful assiduity, it deserves to be stated, that of all the lectures in the several departments (from 5 to 7 daily for a period of four months,) he lost his attendance upon a single one only, and this was accidental! His intention was ultimately to have relinquished his commission, and devote himself to his new profession. He had selected especially the department of medical chemistry, and gave every promise of future usefulness and eminence in that interesting and important branch. Our readers probably need not be reminded that several valuable articles from his pen are contained in the former numbers of this Journal. His health had for many years been delicate, but the disease that proved fatal was typhoid fever."

## PART IV.—PROGRESS OF MEDICAL SCIENCE.

### REPORT ON THE PHYSIOLOGY AND PATHOLOGY OF THE BLOOD.

#### ARTICLE XI.

The following remarks upon the elaboration, composition, and relative constituent proportions of the blood; without professing to comprise a synopsis, even, of the most recently developed facts and opinions upon this subject, are presented to our readers for the purpose, merely, of calling their attention to the subject, and of showing the importance of making the very remarkable pathological changes that take place in this fluid, a means of diagnosing and treating diseases.

It is a well known fact, that nutritious substances taken as food, are, by the process of digestion, converted into a fluid substance called chyle, the composition of which is albumen and saline matters dissolved in water, with fat globules suspended in the fluid.

In its passage from the intestines, through the lacteals, to the mesenteric glands, and thence to the thoracic duct, the chyle undergoes many and important changes; the most remarkable of which is the conversion of its albumen into another organic principle called fibrine. "Albumen, then, may be regarded as the first proximate element; at the expense of which in conjunction with fatty matter all the tissues of the animal body are ultimately formed. Still this organic principle, as long as it remains in a state regarded by chemists as characteristic of it; exhibits no tendency to become organized, and it is only when it has been subjected to certain peculiar vital influences, and, perhaps, undergone a change in its chemical constitution, or, in other words, has been converted into fibrine, that any such tendency manifests itself.

As the consequence of this change, the fibrine increases, and the albumen lessens, whilst, at the same time, the oil-globules undergo an evident diminution. It is not conceivable that the fibrine should be at once formed from the oil-globules, since albumen is much more ready to undergo organization and vitalization, and is always the preceding principle to fibrine. The fibrine must, therefore, be produced at the expense of the albumen, whilst new albumen is elaborated from the oily matter.

The following table presents a view of the relative proportions of the three principle ingredients in the chyle in different parts of the absorbent system, and gives an idea of its advance in the progress of assimilation.

In lacteals, from intestines, to mesenteric glands.	} Fat in maximum quantity. } Albumen in minimum quantity. } Fibrine almost entirely wanting.
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In lacteals, from mesenteric glands to thoracic duct.	<div> <div>Fat in medium quantity.</div> <div>Albumen in maximum quantity.</div> <div>Fibrine in medium quantity.</div> </div>
In thoracic duct.	<div> <div>Fat in minimum quantity.</div> <div>Albumen in medium quantity.</div> <div>Fibrine in maximum quantity.</div> </div>

The fluid, drawn from the thoracic duct is frequently observed to present a decided red tinge, which increases on exposure to air. This tinge is due to the presence of true blood corpuscles, smaller, however, than those of the true sanguineous fluid.

As to the composition of the blood then, it may be said to be composed of water holding albumen, fibrine and saline matters in solution, having particles of a red colour floating in the fluid. These, the true blood-globules, are flattened discs, having a circular outline, and composed of three parts, the capsule, the nucleus, and the contained matter, thus constituting a complete nucleated cell. It is a peculiarity in the composition of these globules that they each contain a small proportion of iron: the red colour of the blood is due to their presence.

Blood drawn from the body, and left to itself, soon presents a new arrangement of its organic elements. The fibrine coagulates and separates from the fluid portion, attracting and enclosing in its meshes the red globules, thus forming what is called the coagulum or clot. The remaining portion, designated serum, is composed of water holding in solution the albumen and saline matters.

According to M. Andral, the usual or normal proportions of these different ingredients in the blood, are as follows:

Of each element in 1000 parts, Fibrine,	3
Globules,	127
Solid matter, dissolved	
in serum,	80
Water,	790

The proportion of fibrine may vary in health from 2.5 to 3.5, that of the globules from 110 to 140. The clot formed by the coagulation of blood, being dependant for firmness upon the fibrine, and for colour and volume upon the amount of globules, indicates, by its density and more perfect reticulated structure, an exuberance of fibrine, and by its softness, bulk and high colour, a comparatively large proportion of globules.

Blood coagulated slowly, and in which the proportion of fibrine is large, as compared with the globules, permits the colouring matter to settle to the bottom of the clot, thus leaving a nearly colourless layer of fibrine upon its surface, long since known to physicians and described by writers as the *buffy coat*. In cases where the proportion of fibrine is large, and the coagulum firm, it presents a concave or cupped surface.

All the organs of the body being dependant upon the blood for nutrition and support, are, consequently, deranged in their functions and subject to change of structure whenever this fluid becomes deteriorated in quality, or changed as to the relative normal quantities of its constituent proportions.

Among the most important and easily detected pathological changes which take place in the blood, are those resulting from a want of the due proportions of its elements, such as an exuberance or deficiency of globules, increased or diminished amount of fibrine, want of albumen, saline matters, &c.

Of the abnormal conditions and diseases of the system, in which such changes in the constituent proportions of the blood are most apparent, may be enumerated Plethora, Anæmia, Pyrexia, Phelgmasia, Hemorrhages and Dropsies.

Contrary to the generally received opinion that the peculiar condition of the system in plethoric individuals depends upon exuberance of blood, it appears from the researches of Andral, that the marked peculiarity of this fluid in the above named condition of the system, is an increase in the amount of its globules. In 31 bleedings of plethoric subjects, in each of which an analysis of the blood was made by this distinguished pathologist, the average amount of globules in 1000 parts was 141, the normal quantity being 127. Hence it is that the blood of such persons is high colored, presenting, after coagulation, a comparatively small amount of serum, a voluminous clot filled with fluid, and soft for want of fibrine, but never incrustated with the buffy coat.

Coincident with an excess of globules in the blood of the plethoric, there are certain physiological and pathological phenomena dependant, as it seems, upon this peculiar condition of the fluid. All the functions of life are more active, digestion quick, respiration full, circulation rapid, with a degree of general excitability of the whole organism; thus showing that the blood of plethoric individuals is highly exciting, and of a stimulating character. This truth is made more apparent also, by the fact, that such persons are subject to vertigo, dizziness, ringing in the ears, &c., symptoms produced, without doubt, by the passage of an excessive number of globules through the brain. Plethoric persons are, also, more liable than others to active hemorrhages and apoplectic effusions, the result, evidently, of the absence of the due proportion of coagulable matter in the blood.

By blood-letting, abstemiousness, and general antiphlogistic treatment, the number of blood-globules are readily diminished.

It appears, then, that an excess of the globular element of the blood is a constant distinguishing characteristic of plethora; a fact leading to the inference of that, which is in reality true, viz: that in anæmia,—a condition of the system directly oppo-



site to that of plethora,—the amount of globules falls far below the natural standard.

This anæmic condition of the system, is characterised by paleness of countenance, general muscular debility, nervousness, neuralgia, vertigo, dispnœa and palpitations of the heart upon the slightest effort.

An example of spontaneous anæmia, in which most of the above named symptoms are always present, is that not uncommon but peculiar disease of females, chlorosis.

This want of the globular element in the blood is often the effect of debilitating diseases and profuse hemorrhages. Pregnant women, also, during the last months of gestation, often become anæmic. Andral observes, "I have found as the average of the proportion of globules in 16 cases of commencing anæmia, the cipher 109, and in 24 cases of confirmed anæmia the cipher 65"—127 as above stated being the normal quantity.

The physical properties of the blood drawn from anæmic patients is perfectly characteristic of its condition. For want of globules the coagulum is small, and swims in a large amount of perfectly colourless serum; but, as there is no want of fibrine, it is firm and generally presents upon its surface a well marked buffy coat, resulting from the absence of globules in this upper stratum of the fibrinous mass.

Thus it is seen that the presence of the buffy coat is not always a diagnostic sign of inflammation, since it appears upon the blood of patients whose general condition, evidently, requires a course of treatment directly the opposite to that, generally considered to be most efficacious in the phlegmasiæ.

In order to increase the amount of blood globules and thus restore the blood to its normal condition, those means are to be employed which are generally believed to give tone and vigour to the system, such as nutritious food, fresh air, exercise and tonics, of which, the preparations of iron are most effectual.

As an example of the good effects of proper treatment in such diseases, Andral mentions the case of a young lady, who, in 3 months, had the amount of globules so much increased as to present a change in that short space of time, from a confirmed anæmic to a well marked plethoric condition.

The *pyrexia* are another class of diseases in which the change in the blood, if not so well marked and defined, are still of great practical importance as indications for diagnosis and treatment.

These affections being characterised like the phlegmasiæ, by general febrile excitement, an attempt has been made, by several distinguished writers, to make it appear that the fever attendant upon them is always symptomatic of local disease, and that they should all be classed together with simple inflammatory affections.

“Such pretensions,” remarks Andral, “cannot be maintained. The pyrexiae exist as diseases apart; the causes which often develop them, the symptoms which characterize them, the special nature of the alterations which they produce in the solids, are already enough of grave reasons for not confounding the pyrexiae and the phlegmasiae;” “but the analysis of the blood comes still more to establish a very remarkable difference between the one and the other class,” for “in the phlegmasiae there are always two constant alterations which march together, that of the solid and that of the blood, it is no longer the same in the pyrexiae; in these diseases in reality, the only phenomenon which never fails, is the fever itself.”

But although it is true as above stated, that the pyrexiae may exist without any appreciable alteration in the solid or fluids, yet there never is in these, as in inflammatory diseases, an increase in the amount of fibrine. On the contrary, this organic element, even in the milder forms of these diseases, is generally diminished, and in well marked cases, it is not only uniformly lessened in quantity, but becomes deteriorated in quality, as appears from the imperfect structure of its coagulum.

Blood drawn from an individual suffering under the influence of typhus, typhoid, miasmatic fevers, or other forms of pyrexiae, coagulates slowly. The fibrine, being small in quantity, and of an inferior quality, the clot is voluminous, imperfectly separated from the serum, soft and easily broken; in fine, the blood of such persons presents appearances indicative of low vitality, and a want of coagulable matter.

In the above described morbid condition of this fluid, there being a diminished amount of fibrine, but, at the same time, a normal quantity, or a relatively increased proportion of globules, the buffy coat, resulting, as before stated, either from an exuberance of the former, or a paucity of the later element, is never present.

This affords another important distinguishing characteristic between the phlegmasiae and pyrexiae. “I may affirm,” says Andral, “that I have never met with it (the buff) unless there was phlegmasial complication, either in slight or severe typhoid fever, in measles, in scarlatina, or in variola.”

As the result of a want of fibrine and a normal tendency to coagulation in the blood in the advanced stages of the adynamic or putrid type of the pyrexiae, it has a tendency to exude from its vessels; hence the effusion of blood into the pustules in variola, the hemorrhages in malignant scarlatina, and the epistaxis and bleeding of the gums in the advanced stages of severe typhus and typhoid fevers.

The numerous sanguineous congestions in this class of diseases, mistaken often, for inflammations, are evidently the



effects of the absence of a due proportion of coagulable matter in the blood. The enlargement and softening of many organs, as the spleen, are also, the effect, many times, of an accumulation of such blood in their structure.

As to the origin of the pyrexia, it may be said, that it is by no means probable that the want of fibrine is the primary cause of these diseases, for it seems incontestible, "that the specific cause which gives them birth, acts upon the blood in such a way, that it tends to destroy its spontaneously coagulable matter." "If this cause acts with slight energy, or if the economy resists it, the destruction of the fibrine is not accomplished; if, on the contrary, the cause continue to act with all its intensity, and the forces of the organism be in fault, the destruction of the fibrine will commence either at the very beginning of the disease, which is very rare, or a certain period after its commencement: all this applies itself equally well both to the typhoid fevers, and to the eruptive fevers."\*

It is a fact well known to the profession, that there are but few diseases of the class pyrexia, for which we have remedies of known efficacy; and it is equally true, that of the means of restoring the blood, in these diseases, to its normal condition, we are equally uninformed. It has been suggested by some, that the administration of such agents as favour the coagulation of blood, such as acids, &c., might prove beneficial.

We now pass to the consideration of another, perhaps the most important class of diseases—the phlegmasia,—which, though characterized by general febrile excitement like the pyrexia, present at the same time, a directly opposite condition of the blood.

Meckel has defined inflammation to be "congestion with a tendency to new production." This definition is, probably, as nearly correct as any that can be given; for from the very beginning to the termination of every inflammatory affection, there is a constant tendency in the blood, in proportion to the extent and severity of the disease, to the production and increase of its fibrinous element. The augmentation of the quantity of fibrine is so constant a sign of inflammation, that if we find more than five parts in 1000 in the course of any disease, we may positively affirm that some local inflammation exists.

During the active stage of inflammatory diseases, blood drawn from the patient presents all the characteristics indicative of an increase in the amount of fibrine. The coagulum is small, but firm, and comparatively free from serum, presenting, in most cases, when properly drawn, a well marked buffy coat, with a concave or cupped surface. The buffy coat then; excepting in anæmic conditions of the blood, where the amount

\*Andral.

of fibrine, not being actually increased, is large only as compared with the diminished proportion of globules; always indicates an increase in the fibrine, and consequently the existence of some inflammatory affection.

The condition of the system, at the time of an inflammatory attack, seems not to influence the consequent increase of fibrine. A person may be exhausted by chronic disease, or present a confirmed anæmic condition, yet, upon the accession of an inflammatory affection, there is in these, as in other cases, as constantly an increase of this constituent. In chlorotic patients, for instance, who have been attacked by acute articular rheumatism, bronchitis, pneumonia or erysipelas, the blood has been found to contain 6, 7, and even 8 parts of fibrine; and in cases of the pyrexia even, such as typhoid, typhus and miasmatic fevers, causing a diminution of fibrine, if, in the course of the disease, there supervenes an inflammatory affection, the amount of this element is always increased; thus presenting two forces acting upon the blood, one to diminish, the other to increase the proportion of this, its spontaneously coagulable element.

We may mention in this connection a curious fact, established by Gavarret, that the blood of animals, dying of hunger, shows an increase in the amount of fibrine, an effect, as appears from examination, of inflammation of the coats of the stomach.

As to the comparative increase of fibrine, in inflammation of different tissues, it may be remarked, that of all diseases, pneumonia and acute articular rheumatism, are those in which the augmentation of this element is the greatest; the amount of fibrine in these affections often rising to the proportion of 10 in 1000.

In slight inflammation of the mucous membranes, unattended by febrile excitement, there is little or no appreciable change in the blood; but whenever the local disease becomes sufficiently intense to produce general reaction, the proportion of fibrine is found simultaneously to increase. It may in truth be stated, as a general fact, that independant of the organ affected, the accession and continuance of the accompanying fever bears a close relation to the constantly progressive changes in the sanguineous fluid. It seems not unreasonable to suppose, then, that the blood, circulating as it does through every organ and tissue of the body, thus surcharged with an undue proportion of its fibrinous element, produces that morbidly excited condition of every part, termed sympathetic fever.

The blood of individuals affected with mercurial ptyalism, presents always an increase of its fibrine, in proportion to the extent and severity of the inflammation. To illustrate, we give the following brief synopsis of three cases recorded by



Andral. In the first case, profuse salivation was produced by 18.5 grs. calomel, augmenting the proportion of fibrine in the blood to 4.5. In the second case 9.5 grs. of calomel gave rise to very acute inflammatory action, increasing the fibrine to 5; and in the 3d case, more violent inflammation was produced than in either of the preceding, by the combined internal and external use of mercurials, raising the proportion of fibrine to 8.4.

Thus we see, that inflammation produced by mercury, appears not to differ in its effects from that produced by other causes. This fact may lead some to doubt, with good reason, the propriety of producing salivation in acute inflammatory diseases, and thus adding to the amount of fibrine already too abundant. It seems not, however, to contraindicate the more moderate use of the mineral, for it appears that the inflammation, not the medicine, caused the morbid change.

On the other hand, there seems to be some slight indication in the above fact, for the production of ptyalism to restore fibrine, and thus supply the deficiency in the pyrexia, such as typhus and typhoid fever.

Mercury is a remedy which has been, and is still used and recommended by practitioners, empirically, as it would seem, unless the above is a good reason for its use. Let us not, however, form hasty conclusions upon this point. In our contentions with disease, plausible reasons may justify the trial of a remedy, but favorable effects only recommend its general use.

Inflammations of the skin, from severe burns, erysipelas, blisters, &c., give rise also, to augmentation of fibrine in the blood. This fact suggests the probability, that the consequent increase of this element in cutaneous inflammatory affections, may be the principle and perhaps only reason, why blisters and other severe external irritants increase the sympathetic fever, and thus act unfavorably in the acute stages of these diseases. It may be true also, that the well known good effects of these remedies, in fevers of a typhoid type, and in old chronic affections, are, in part, the immediate results of an increase of fibrine, consequent upon the inflammatory action thus artificially produced.

It seems then, that inflammation, whatever may be the causes and circumstances attending its accession and continuance, appears and advances in most cases, simultaneously with the production and increase of this constituent of the circulating fluid.

As an exception, however, to the general rule, that increase of fibrine is accompanied with inflammatory action, it may be remarked, that pregnant women, during the last months of gestation, present blood, containing this element in a much higher proportion than the normal standard, varying for in-

stance, from 4 to 5 in 1000 parts. It seems then, that "the blood on these occasions shows a remarkable tendency to assume the character of inflammatory blood; and assuredly there is matter for reflection in the relation which may exist between the modification then affected in the blood, and the development of those peculiar attacks, generally of an inflammatory aspect, to which women in child bed are so liable."

As to the treatment of inflammation, it may be remarked, that the condition of the blood in these diseases seems to indicate the employment of such means as tend most directly to diminish the amount of its fibrinous element. Unfortunately however, no agent is known to the profession by means of which we can produce this effect promptly, and to such an extent as to give us unmistakable evidence for or against this apparently legitimate conclusion.

Venesection has been found, by experience, to be one of the most effectual means of moderating and checking the progress of the phlegmasiæ. The most obvious effect of blood-letting, is that of abstracting a comparatively large proportion of the blood's most stimulating element, the globules. It acts favorably also by lessening, in common with the other ingredients, the exuberant fibrine, and thus removing, to some extent, the apparent cause of febrile action; and lastly, by diminishing the amount of blood circulating and thus favoring the absorption of fluids, it causes a dilution, and consequently, a more general diffusion of all its constituents. Cathartics, low diet, and most others of the class of antiphlogistic remedies, produce their beneficial effects, very probably, by diluting and diminishing the active constituents of the blood, and thus rendering this fluid less stimulating to the system generally, and to inflamed organs in particular.

Since the establishment of the important truth, that excess of coagulable matter is a distinguishing characteristic of inflammatory blood, it is said that well marked favorable results have been obtained from the administration of remedies, such as alkalies and other chemical agents, the well known effect of which, is to retard the coagulation of blood, and, as is believed by many, to prevent the rapid formation of fibrine. Nitrate of potash, for example, is a well known effectual remedy in this class of diseases, which, as it prevents the coagulation of blood after it is drawn, and even in the vessels, when injected into the veins, may depend, in part, for its beneficial effects in disease, upon this property.

In concluding these remarks upon the phenomena coincident with a pathological condition of the circulating fluid with regard to the fibrine, it may be stated, that among the most important of these, is a spontaneous tendency to loss of blood—the concomitant always to a deficiency of the coagulable as compared with its globular element.



It appears from facts before stated, that this want of normal proportions between these constituents is present in two apparently opposite conditions of the system—the plethoric and typhoid—in each of which, the blood presents the peculiar characteristics of excess of globules in the former, and deficiency of fibrine in the latter condition. Hence it is, that hemorrhage may be either active or passive, according as it occurs in one or the other of these abnormal conditions of the circulating fluid.

In plethoric persons, bleeding at the nose and other hemorrhages, if not profuse, or in such locations as to interfere with the vital functions, often relieve the unpleasant symptoms to which, as before stated, these individuals are sometimes subject. This is because a bleeding or hemorrhage, if not carried beyond a certain point or excessive, diminishes the globules proportionally more than the fibrine, and thus for a time, removes the plethoric condition; but if, on the other hand, the abstraction of blood be carried too far, or if the active hemorrhage continue long and profuse, the fibrine begins to diminish at first, to the same, and afterwards, to a greater extent even than the globules, thus presenting at length, a condition of the blood, in which there is a deficiency of fibrine as compared with the globules, and thus changing its condition from that productive of a comparatively harmless escape of excess of globules, to that coincident with the more obstinate and dangerous disease, a passive hemorrhage.

From remarks, which have preceded upon this subject, it appears that the condition of the blood, favorable to passive hemorrhage, is present in the advanced stages of all the most malignant pyrexiaë, and as an effect of this morbid condition we have in these diseases, effusion of blood into the tissue of organs and under the cuticle, producing engorgement and petechial spots and patches; hemorrhages both internal and external; collections of blood in the cavities, and frequent bleedings from the gums, nose, rectum and other parts.

Thus we see that a loss of the fibrine of the blood is one of the most disastrous in its effects of all its pathological changes, a truth calling loudly upon the profession for some means of preventing the destruction of this important element.

No remedy is known, however, of sufficient activity and promptness in its effects, to modify this condition of the blood, to any appreciable extent, in the most malignant forms of this class of affections. It is evident then, that our attention, for the present, should be directed to the first stages, and milder forms of these diseases, and to the nature and mode of action of those remedies which have been found most effectual in these more simple cases, where their effects can be seen and appreciated.

In all of the more chronic and milder forms of this class of

diseases, with blood deficient in fibrine, such as scurvy, &c., more or less, of the following symptoms, always present themselves: pale, livid and dusky countenance, petechiæ, ecchymoses, soft, swollen and bleeding gums, debility, general numbness, heaviness of the head and vertigo. Blood drawn from an individual with such symptoms, coagulates slowly and imperfectly, the clot is, generally, large but soft, and often in separate fragments, never however presenting the buffy coat.

As to the therapeutic agents to be employed in diseases of this class, it may be remarked, that the causes, giving rise to them, as well as certain attendant conditions of the blood, give us some important indications.

The causes which most commonly give rise to this abnormal condition of the blood, are a damp and vitiated atmosphere, insufficient and improper food, such as that deficient in albumen and fibrine, the excessive use in food or otherwise of neutral salts or alkaline substances, such as common salt, salætatus, &c. Of the bad effects of the last named class of chemical substances, we have ample evidence in the condition of the blood coincident with a loss of fibrine.

It is true, that the loss of a large proportion of the blood's coagulable element in these diseases, is the change made most appreciable by chemical analysis. "But is this the ultimate alteration we are permitted to arrive at? Before the fibrine decreases, has there not been some other change of composition in the blood, of which the depression of fibrine below its normal average is itself only the consequence? Upon this subject some facts may be cited. It may be remarked, that on throwing into the veins of living animals, a concentrated solution of subcarbonate of soda, an almost fluid blood was found in the bodies of these animals when dead, and that during life, their symptoms were analogous to those observed in diseases, in which the older writers admitted a state of dissolution of the blood. It may also be remarked that some authors declare, that they have found an excess of alkaline matters in the imperfectly coagulated blood of persons who died of low fevers or scurvy."\* It is also true that blood drawn from patients with scurvy and other diseases, depending upon the same cause has presented the same characteristic.

It would appear then, that the treatment indicated in such cases, is to counteract the influence of the above named causes, by introducing in their place, an opposite train of influences, such as exercise, uncontaminated air, a plentiful supply of nutritious, nitrogenized food, and the displacement of alkaline ingesta by acid substances.

That the acids act favourably in these diseases, by neutralizing the excess of alkaline constituents in the blood, and favouring its coagulable tendency, is a view of their *modus operandi*

\* Andral.



of recent date. Whatever may be their mode of action, however, there can be no doubt with regard to their utility, or of the good effects of the general treatment above described, numerous results and long experience having established its efficiency.

In conclusion, it may be remarked that deficiency of albumen, is another very important alteration, not yet referred to, in the relative proportions of the blood's constituents, concomitant, always, with a tendency to dropsical effusions. Want of space however, compels us to defer, for the present, a consideration of this part of the subject. We hope, however, that the preceding partial exposition of some of the more modern, but generally adopted views, with regard to the composition and different conditions of the blood, imperfect as it is, and too limited for an exposition of the relation of facts referred to, may serve to direct attention to the importance of the subject and to the interesting facts and conclusions, which several distinguished men, now engaged in its investigation, are, from time to time, communicating to the profession.

W. B. H.

## PART VI.—ECLECTIC DEPARTMENT.

1. *Paralysis*.—The following remarkable case of paralysis, is extracted from the thirteenth annual report of the Massachusetts State Lunatic Hospital, published in November last, by Samuel B. Woodward, M.D., the able and accomplished physician to the institution. It is related to show the derangement of mind, from disease of the external senses, and is interesting, both in a pathological and psychological point of view. Since the publication of the report we learn that the unfortunate sufferer has been relieved by the hand of death. E.

E. A. M., an orphan girl aged 15 years, was admitted to the Hospital, December, 1844. She had had chorea, and has been for sometime melancholy, and effected with headache and great distress in the eyes, which, at such times appeared prominent and distorted. When the paroxysms of headache were over, the eye assumed nearly a natural appearance. For some time she apparently improved, the paroxysms were less severe, and her general health rather better. At this time she began to occupy herself in active domestic employment, she was most of the time cheerful, and we had strong hope of a radical amendment.

These paroxysms did not wholly subside, and when they did occur, she was a great sufferer, and felt gloomy and desponding. She had amenorrhœa, and was inclined to constipation, had bad appetite and sleepless nights. In the intervals of these paroxysms, she was cheerful and active, but would usually say her head ached if she was questioned as to her health.

Some time in March, the disease manifestly increased, the paroxysms became more severe and protracted, and the gloom and despondency increased. In the latter part of April her sufferings were greatly aggravated, the suffering in her head became agonizing, and her sight was greatly impaired. She took no notice of those about her unless touched by them, when she seemed much frightened, but did not speak. During the month of May, she was extremely ill, confined most of the time to her bed. She had severe spasms and excessive headache, laid nearly senseless, moaning and suffering extremely, often tearing her hair and beating her head with great violence. With the exception of moving her hands, she seemed entirely paralyzed. In this state she continued some weeks apparently near dissolution. She took very little food and emaciated rapidly. Early in June she recovered her speech, and we then ascertained that she was entirely blind and deaf, and had lost the senses of smell and taste. She was entirely



unconscious that she was at the hospital, talked to her brothers and sisters as if they were present, and complained in the bitterest terms, that they would not answer her questions, or in any way communicate with her. She had no idea that she was deaf, and it was truly heart-rending to hear her exclaim, "why will you not talk to me—all is silent as the grave—what have I done that you will not speak to me?" For hours together she would address her friends in the most plaintive and imploring language, begging for one word, even if it was that of unkindness. At times she imagined she was a captive among some barbarous people who could not understand her language, and frequently asked if there were no missionaries among them who could serve as interpreters.

While in this condition, after trying various remedies it was thought advisable to try the effect of galvanism. The battery was got ready and the fluid applied gently to her hands, when she became agitated in the most extraordinary degree, her countenance flushed, her eyes glared open and her expression the wildest conceivable, while she continually screamed, "don't bury me alive, don't bury me alive—I am not dead, I am not dead." Never did I witness such a scene—every avenue of communication with her was cut off, and for twelve hours she screamed without intermission, declaring that she was not dead, and begging most imploringly that we would not bury her alive. Too late we found that we had excited a storm which we could not calm; there was no way in which we could soothe or pacify her in the least degree. When completely exhausted, she became quiet and slept. For some days she would start, and appear frightened by the slightest touch. She gradually got better of this excitement and appeared much as she had done for some weeks previous. During all this time, she did not recollect any thing of the hospital or its inmates. She called those about her by the names of her absent friends, myself and assistant she recognised as physicians who had attended her some years previous; her nurse she called by the name of her sister. When I visited her, she would say, "Doctor, why do you not speak to me, you used to be so kind and pleasant, and now you are as silent as the rest; do Doctor, speak one word to me." She improved slowly and favorably till about the middle of June, had taken morphine, submuriate of mercury, the arsenical solution and some laxative medicines, had also had blisters on her temples. Much of the time she swallowed with difficulty, so that food and medicine were given irregularly. On the 17th of June, she again lost her speech, but communicated in a very limited manner by general signs. If thirsty, she would place her fingers on her lips; if she wanted air, she would make the motion of the fan. With this increase of symptoms, she had frequent pulse, dry skin, dry tongue, soreness of the

throat, and great difficulty in swallowing. On the 20th of June, for the first time during this long illness, she seemed to have some idea of the hospital, and those who resided here, and by some external mark or peculiarity of dress, recognised a few individuals with whom she had previously been intimately acquainted.

When she first came to the hospital, sad and unhappy, she and another young lady who was equally melancholy, were in the practice of sitting together in their rooms and weeping as they rehearsed their grief. Ascertaining this to be the case, I directed their attendants to prevent such interviews alone, and separate them if thus found talking together. To avoid scrutiny, they learned the manual alphabet and communicated with each other on their fingers quite freely. This was unknown to me at the time, but now it was thought of by the young lady, who was nearly recovered, and she made an attempt to communicate with her upon her fingers. After a time the experiment succeeded, and she learned for the first time that she was deprived of her external senses.

She thought that she had been for a long time in a dark, dismal place, where the people did not talk, and where they drank but did not eat. Early in July, she again lost her speech for forty-eight hours, and during that time was exceedingly sensitive and easily agitated. The slightest touch would alarm her, and bring on trembling; fanning agitated her, and the least motion of the bed clothes would excite and disturb her.

Till the sixth of July, the senses remained lost. Various experiments were tried with her to satisfy us that they were entirely gone. She drank vinegar as water, took a tea spoonful of cayenne pepper as she would take so much bread, without noticing it in the least. On the 7th of July, the sense of smell was suddenly restored and she enjoyed the fragrance of flowers and other perfumes. This was the first restoration of any of the external senses, and it remained but a short time. For some days she had been very comfortable and seemed to be improving favorably. On the night of the 12th, the nurses were awakened by her groans, and found her in a state of great trepidation and alarm, which was only increased by every attempt to soothe her. When any one touched her, she would spring away in great fear, her eyes staring, and her whole frame trembling with agitation. In the afternoon of the next day, she became more composed and was able to recognize a few friends, but had entirely lost her speech. When she recognized any one, she would seize hold of them with a convulsive grasp, and by familiar signs of recognition, and great animation of countenance, would show the joy and satisfaction she experienced in meeting them. When these paroxysms have left her, she has usually supposed that she



has been away to some dismal place, "down, down, down." When she meets her friends after the illness has passed, she says with great animation and expressions of delight, "got back, got back." At this time, she communicated readily with her fingers, and many of her friends learned her language. Her sense of touch was very acute. She read with ease the lettering on books, and the books for the blind. Her mind was very active, and her memory retentive. She walked about with some assistance, and gains strength and health between these paroxysms. She talked much with her friend J—, who had recovered, and was employed to converse with and take charge of her. When she is in one of her paroxysms she is dull, understands but little, and often loses her memory of every thing. Her smell repeatedly returned for a short period, but was soon gone again; so far as we have been able to discover, she has been totally blind from the first, and deaf since the first loss of hearing. She has repeatedly come out of these paroxysms with some delusion upon her mind. Once she supposed that her mother had visited her and brought her ornaments, which had been lent her; these she afterwards claimed as her own. For a long time, this impression remained, though her mother died when she was two years old. In the intervals of these paroxysms, she is sensible and rational, very quick in her discernment, and greatly disposed to mirthfulness.

Early in August, when she was in this comfortable state, she was frightened by some one coming to her room and taking hold of her. She was so much agitated by this, that the slightest touch, for a number of days, would alarm her. Her trepidation on this occasion was so great that she could hardly be persuaded to take her food or drinks, every communication frightened her so much. She again recovered from this fear, and was cheerful and happy. She took much pleasure in knitting and was very industrious.

On the 12th of August her friend J. left her. She had been most kind and faithful to her, and her departure was a cause of great grief; they were mutually attached, and both felt sad at the separation. Her attachment to J. was very strong, and whenever her name was communicated to her, her countenance brightened and she was full of animation and joy. Soon after this good friend left her, our patient was removed to the family apartments, where she has since remained.

On the 14th of August she had another paroxysm, which is thus described by one who was with her. "Her face assumed a singular expression, her eyes rolled wildly, and when I attempted to speak with her, I found she did not notice at all. She kept my hand but would suffer no other hand to touch her without an expression of horror. She trembled constantly, started frequently, and seemed to be in the greatest fear. In

about an hour she became more calm and slept. It was thought best to place her in bed, as she was not in a comfortable position. When touched for this purpose, she manifested the greatest agitation, and screamed in the most frightful manner, resisting with all her power. When finally placed in bed, she crouched close to the wall, trembled so as shake the bed, and with every breath continued those dreadful screams. After an hour she became more quiet and slept again. When she waked she felt about to ascertain where she was, examined the hands of her watch to tell the time, and recognized the friend who was with her. She moved her hands about in an awkward manner as if she had some idea of having communicated with them. When we attempted to talk with her in the usual manner we ascertained that she had forgotten her alphabet; she had also forgotten how to knit, though she was knitting when the paroxysm came on. After a few attempts she succeeded in writing her wants on the slate, and in the course of the day learned her alphabet again, and was able to knit." As usual, she supposed that she had been away during the paroxysm, said she was "so glad to get back," and would never go away again. She did not enquire for any one, and was much afraid of being touched. She had been intimately acquainted with many persons in the house, but now seemed to have forgotten them all, and for a considerable time could not be made to understand who they were. After a few days she recollected that there were three physicians here, and gradually regained her knowledge of other friends.

For many days in the latter part of August, she was quite ill, suffering from palpitation, head ache, and severe neuralgia. After these symptoms had continued some days, she began to lose the use of her lower limbs; they were very painful, and she attempted to walk, tottered and repeatedly fell. Early in September she lost the use of them entirely, and all sensibility in them. For a time they were perfectly cold and white, as if dead, and pins or needles thrust into them produced no impression. They have since appeared more natural, but are yet insensible. At this time she very suddenly regained her senses of smell and taste, and was made very happy by it, thought her other senses would soon be restored, and indulged in many pleasing anticipations. Soon after this she began to articulate a few words, though in an imperfect manner; she was not conscious of it, and when told that she had really spoken, her delight was unbounded, she repeated the words continually, and daily added to their number.

She was now very happy, could taste, smell and talk considerably. Her feeling was also very acute, so that she could not only read the books for the blind, which she did readily,



but coins, seals and engraved visiting cards. She was very industrious and employed herself in knitting purses, making worsted mats and sewing. The articles thus made she sold to visitors, and took great pleasure in counting her money and shewing it to her friends. She prepared some articles to be exhibited at the Fair in October, and was much delighted when she learned that she had obtained a premium for them. She was much interested in all accounts of the Fair, and the descriptions of the articles there exhibited. The evening after the Fair she attended a dancing party, which was got up for the patients, and though she could neither see the dancing nor hear the music, she enjoyed it greatly. She could feel the motion of the floor, and took the hands of the dancers as they passed her. Examined their dresses, inquired of all her associates who they had for partners, and seemed quite the happiest person in the room.

At this time she wrote to her brother that she was "as happy as the day is long." She remained in this state of enjoyment and good health till the 20th October, when she again became ill and for several days was in intense pain. She had severe palpitation, and the pain about the heart was very violent, her eyes were much swollen and inflamed, and the distress in her head very great. Much of her pain seemed to be neuralgic, and she suffered apparently beyond human endurance. Large doses of morphine only afforded relief, and these often repeated. For many days her life was in jeopardy, and it seemed hardly desirable that she should again recover. Her distress gradually subsided, but we found that she had again lost her speech, and with it, all feeling in her hands; they were entirely useless. Her situation was now more deplorable and hopeless than ever. The only medium by which she had been able to communicate with those around her, was now withdrawn, and existence was a burden. She could not speak as in her first attack, for she was now dumb; she could not recognize her friends by the sense of touch, for her hands were paralysed. She could see no one, hear no one, feel no one, and she constantly suffered the most agonizing pain. Her friend watched her with increasing vigilance and solicitude, and as she was relieved from suffering, she commenced teaching her an alphabet on her face. By untiring perseverance, she succeeded in communicating to her simple ideas in this novel manner. While this experiment was going on successfully, the sensibility of her hands was at once partially restored, and she was again able to converse in her usual manner.

From this severe illness she gradually recovered to her former condition, except that the acute sense of feeling which she had long had in her fingers, did not return, and she has since been unable to read even the raised letters of the blind.

During the month of November, she has been very comfortable most of the time, has had considerable head ache, and gets easily fatigued, yet she is ever cheerful and happy. For some days previous to the annual thanksgiving, she was anticipating the pleasures and festivities of that occasion, and when the day arrived she was full of enjoyment. She dined with her friends, and in the evening enjoyed the dance as much as before. She now spends her time in knitting, sewing, writing and playing games. In her chair on castors she moves about from one place to another, enjoying the salutations which she every where meets, and though quite blind, deaf and dumb, and unable to walk or read, she has much real pleasure, is ever patient, cheerful and thankful to those friends who meet her with affectionate kindness and sympathy, and grateful to her Heavenly Father for so many favors and blessings in the midst of all her privations and sufferings.

2. *Method for detecting the presence of a minute quantity of Bile in the Animal Fluids.*—The ordinary method pursued for the purpose of detecting the colouring matter of bile (biliphæin of Simon, *choleptyrrhin* of Berzelius) in fluids supposed to contain it, consists in adding a portion of nitric acid to the suspected fluid, when, if bile be present, there is immediately produced a beautiful green colour, which by degrees becomes changed successively to blue, violet, red and yellow. It is essential, however, that the quantity of bile should be considerable, in order that these various changes of colour should take place on the addition of nitric acid; if the quantity is but small, there is only produced a greenish colour, which shortly becomes changed to yellow without passing through the degrees of blue and red, for the production of which the quantity of bile present is not sufficient. Dr. Heller,\* moreover, observes, that he has frequently known bile to exist in urine and other fluids without its presence being indicated, or any change of colour effected by nitric acid in the ordinary way of applying this test. He states, however, that if any fluid in which bile exists, contains a portion of albumen, the nitric acid, by coagulating the albumen, will detect the smallest possible quantity of bile, for the coagulum assumes at once either a bluish, or perfectly blue, or greenish colour, and if the bile exists in large quantity the coagulated albumen will accordingly assume a green, and then a reddish colour. In pursuing this mode of testing for the presence of bile, Heller recommends that to the suspected fluid, say urine, a considerable excess of strong nitric acid is to be added, and should there be produced by this means none of the ordinary colours indicative of the presence of bile, then that to another portion of the fluid some albumen dissolved in water (serum of blood, if

\*Archiv. fur Physiol. und Pathol. Chemie and Microsc., Heft I.



at hand) is to be added, and well mixed; a little nitric acid is now to be poured into the mixture, which, after being stirred up, is to be left at rest for the albuminous precipitate to form: if bile be present, this precipitate of coagulated albumen presents a bluish or greenish-blue colour, but if it be not, then the coagulum is simply white (though, after a time, it assumes a yellowish tint, owing to the action of the nitric acid, but this is quite independent of the presence of bile). Thus, therefore, the simplest plan to detect bile in a non-albuminous fluid consists in making the fluid albuminous, and then treating it with nitric acid; should blood be the fluid requiring to be tested, nitric acid may be added at once to the serum, which contains albumen in abundance.

The microscope is capable of still further improving upon this mode of procedure, and of rendering this test applicable in cases where the suspected fluid is too small in quantity to be examined satisfactorily in an ordinary test-tube; for this purpose, Donné\* recommends that a drop of a suspected fluid be placed between two slips of glass, and a little nitric acid added whilst the object is beneath the microscope; immediately upon the acid coming in contact with the fluid characteristic colours are struck, should bile be present. In this way Donné was enabled to determine that an abscess communicated with the intestine, by simply examining a drop of the pus discharged.—*Lond. Med. Gaz.*, Oct., 1845., in *Amer. Jour. of Med. Sciences*.

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3. *Mode of detecting Morbid Bile.*—In some diseases, however, as in cholera, &c., Dr. Heller has found that the colouring matter of bile may undergo a very considerable morbid change, in consequence of which, when treated with nitric acid, it assumes at once a red instead of a green colour. He has found that for bile which has undergone this change ammonia is a better and a more certain test than nitric acid, for although this latter reagent will detect it when in any abundance, yet it is apt to prove deceptive in cases where urine is the fluid undergoing examination, especially if much hæmotosine be present, which substance becomes more or less red by nitric acid. In using the ammonia test, a small quantity only should be at first dropped in, immediately upon doing which a bright red colour is struck; more of the ammonia may then be added until a reddish-brown fluid is obtained. In this way it is possible to detect the presence of a very minute quantity of altered bile pigment, even when nitric acid fails to afford the smallest evidence of its existence.—*Ibid.*

\* *Cours de Microscopie*, page 212.

4. *On certain Pathological conditions of Milk as the cause of disease in Infants.*—*M. Albert Donné*, in his *Cours de Microscopie*, (Paris, 1844, page 412,) observes, “Our ignorance in the present day with regard to the characters of good and bad milk in nurses, and the mode of distinguishing that which possesses qualities requisite for the life and health of the child, from that which only affords to it an unwholesome kind of food, is so great, that it is almost impossible to find a practitioner, nurse, or even chemist, capable of giving an opinion whether a given specimen of milk be of good or bad quality. The indifference with which this important question is regarded, is no doubt in great measure attributable to the difficulty of the subject, to the insufficiency of the results which chemical analyses have hitherto afforded, and to the want of a proper method in the examination of this substance. We cannot in reality attribute it to any lack of interest, or to the trifling importance of the question, for there is perhaps none which in a higher degree concerns the public health, the happiness and welfare of families, or which more frequently presents itself for solution; and I have no hesitation in stating, that all which has hitherto been said and written on the subject of milk, so far at least as regards its peculiar qualities in relation to the nourishment of infants, is absolutely valueless. No one, certainly, is likely to be deceived by the colour, consistence, or even taste of milk; yet nothing can be more vague than are such characters; it is impossible to attach any real value to them; and since they are based on nothing positive, each person may interpret them as he pleases; consequently the attention of medical men is directed much rather to the general health of nurses than to the properties of their milk; and the examination of this secretion, if undertaken, is performed merely as a matter of form. Undoubtedly the general health is an indispensable condition, and one to which especial attention ought to be directed in the selection of a nurse; yet this condition is far from being the only one deserving of consideration, and it is well known that the best health is not always a guarantee for the good qualities of a nurse, or the nutritive properties of her milk; the lacteal secretion may be insufficient, or abnormal, in a woman otherwise perfectly healthy. Is it not a matter of daily observation, that one woman, although of a meagre sickly appearance, makes a better nurse than another woman of the healthiest aspect; and are we not frequently deceived as to the state of the constitution by external appearances? It is evident that the organs endowed with the function of secreting milk are, so to speak, placed too much without the general economy, to allow of the qualities of this secretion being estimated by the integrity of other organs and the regularity of other functions. It is in the milk itself, therefore, that we must search for the characters of its good and bad qualities;



and until we possess the means of observing its properties, and its good or bad nature in relation to the nourishment of infants, practice will be deprived of rule, the choice of nurses will be made in an empirical manner, and the determination of mothers who wish to suckle will more frequently be regulated by chance or caprice, than by reason, or with a due regard to the interest of their children." The subject has recently attracted the attention of M. Girard, who has furnished the following cases and observations. (*Archives Générales de Médecine*, June, 1845.)

CASE I.—In September, 1840, a child, aged five months, was brought to me. I was informed that it was strong and vigorous when born, and that it was at once delivered to the charge of a nurse, who had been suckling for fourteen months. It shortly became uneasy, cried incessantly, and was only quiet when at the breast; it gradually grew thin, and diarrhœa was established, the stools being of a green colour. When brought to me it presented the following condition: Its face was thin and pale, tongue red, with a few scattered aphthous points; belly tense; there was a bright erythematous redness over the thighs and nates; there was frequent diarrhœa, the stools green; vomiting of curdled milk several times a day; the child slept badly, frequently awaking. This was the third time the child had been attacked with an almost similar set of symptoms, except that the aphthous spots now appeared for the first time, and the attack generally was more severe than the former ones, which had disappeared under the use of baths, starch injections, and abstinence from food; the diarrhœa, however, had continued. Baths, injections, gargles were now in vain made use of; the diarrhœa obstinately remained, and the aphthous spots increased. The nurse's milk was very alkaline; it was not examined microscopically. Since the child did not mend, it was determined to change its milk, and a nurse was engaged who had only been suckling for three months. The beneficial effects of this change were very marked; in two days the diarrhœa had considerably abated, and after a week all the symptoms finally disappeared.

CASE II.—Madame S., aged 25, was on the 14th of November, 1844, delivered of her first child, a male, strong and well formed; she suckled this child for ten days, at which time her breasts becoming enlarged and painful, a nurse was engaged. This nurse was a middle-sized, dark-complexioned woman, about 30 years of age. She had no appearance of disease; her breasts were small; her milk was sweet, of good colour, consistence, and quantity, and about three weeks old. The child when delivered to her charge was in good condition, and its evacuations were healthy; but in a few days its sleep became disturbed; it grew thin; its stools became liquid, and very frequent, sometimes green, at others black; it had nausea

and vomiting; a bright redness extended over the thighs and nates, and the child became very restless. On the 3d of December it presented the follow appearances: emaciation extreme; skin dry and rough; diarrhœa frequent; stools green; the belly tense and painful; extensive erythema over the surface of the body; some vesicles on the scrotum; constant vomiting after taking the least quantity of liquid or milk; tongue red, and, as well as the mucous membrane lining the lips and cheeks, covered with numerous aphthous spots. I prescribed bran baths, water containing white of egg for drink, injections of linseed infusion with a drop of laudanum twice daily, and poultices to the abdomen. In spite of this treatment, however, the symptoms became more intense, the erythema extended, the aphthous spots became more confluent, ecthymatous pustules formed on the legs, the diarrhœa became more frequent, and the emaciation increased. This state of things continued until the 9th of December, when the nurse's milk was examined microscopically by M. Duforsé, and the following results obtained:—There was nothing peculiar in its colour; its consistence was that of milk containing much cream; treated with ammonia it became slightly viscous; it was neither acid nor alkaline. When a drop of this milk was examined with a microscope magnifying 300 diameters, it was observed, 1st, that the milk globules were in great abundance, such as is found to be the case in very rich milk; they were generally of a considerable size, and the largest resembled small bladders half filled with liquid, and collapsed. Instead of having a pearl-like brilliancy, most of them, especially the large ones, were of a dull white colour, somewhat resembling opal; some of them, aggregated together, formed small groups, which could be moved about in all directions, without a single globule being detached. When submitted to slight pressure, these several groups spread out so as to occupy a surface five or six times greater than they presented at first, and they assume various forms. The smallest quantity of sulphuric ether introduced between the plate of glass dissolved a large quantity of them very rapidly. 2d. The field of the microscope was beset with roundish granular particles, perfectly colourless, and presenting all the characters described by J. Henlé, Donné, Mandl, Güterbrok, and other micographers.

[To these particles Donné first applied the name of *corps granuleux*, and describes them as invariably existing in colostrum, but disappearing gradually as the milk becomes older; so that after about the twentieth day, and usually much sooner, not a trace of them is to be found. They differ from ordinary milk globules (with which they co-exist) in form, size, general aspect, and internal composition. They are not always globular, but present all possible varieties of form, and also of size, the smallest being about one-hundreth of a millimetre, the



largest many times this size; they are slightly transparent, usually of a yellowish colour, and of a granular aspect, appearing as if composed of a number of small granules aggregated together, or enclosed within a transparent envelop. Very often there exists in the centre or some other point of these little heaps a single globule, which is apparently nothing but a true milk globule imprisoned within the granular matter. The nature of these granular bodies is unknown; Donn   supposes that they consist of fatty matter, and a peculiar mucous substance; they are not soluble in alkalies, but like true milk globules dissolve in ether, and after the evaporation of this reagent small heaps of acicular crystals remain on the glass. (*Cours de Microscopie*, par Alb. Donn  , p. 400.) Although the existence of these granular bodies is commonly peculiar to colostrum alone, yet Donn   (page 421), observes that they and the other peculiarities of the colostrum (as the large irregular size of the milk globules, which, instead of floating free, are agglomerated together in small masses), may persist for many months, or even to the end of suckling. The existence of this condition can only be discovered by the microscope, for the ordinary physical properties of milk, such as whiteness, consistence, and other characters, are preserved; and the nurse may continue in perfect health: the child, however, usually grows thin, although it is continually at the breast, and it commonly becomes attacked with diarrhoea. The milk in this case of M. Girard seems to have retained many of the characters peculiar to colostrum; he thus continues the narration of it:—]

The propriety of changing the nurse was now suggested and adopted: the milk of several was examined microscopically, and one selected whose milk appeared perfectly pure. This change had scarcely been effected two days, when the diarrhoea and vomiting diminished, and speedily ceased altogether; the aphthous spots disappeared, the tongue resumed its natural colour, and the erythema faded. From this time the child speedily recovered its good looks, and became fat, its stools being natural, and sleep good.

CASE III.—Madame R., aged 28, was delivered of her seventh child in February, 1842; a male, strong, and well formed. One of her children had died when six months old from an affection characterized by ardent thirst, extreme emaciation diarrhoea, with green stools, and glairy vomiting. The present child took the breast readily, and was apparently in good health, yet vomited occasionally after suckling; the milk to all appearance was perfectly good. About the beginning of the second month the vomitings increased in frequency. Supposing that the child filled its stomach too full, the breast was given to it less frequently, and a little *eau sucr  e* substituted, yet after each time of taking the breast it still vomited, though

it could retain other liquids ; it soon grew thin and pale, and its bowels were alternately constipated and relaxed.

Towards the middle of the second month, the following symptoms suddenly occurred ; the child screamed out, ceased to breathe, and became unconscious, its face and hands assuming a livid hue : this condition lasted for a few seconds, and then passed off spontaneously, leaving the child weak and faint for some hours. Within the next twenty days the child had many similar attacks, which came on at uncertain periods, both day and night, without any obvious cause ; blisters, antispasmodics, and baths were employed, but without benefit. The vomiting still continued. The milk was now examined microscopically several times, at intervals of some days, and was found to present an enormous quantity of mucus without any other alteration. I informed the mother that it was essential the child should have other milk ; this was repugnant to her, and she requested a few days' delay. Eight days afterwards, the vomitings having diminished, the milk was again examined, and presented a diminution in the quantity of mucus ; but it again increased after a few days, and with this increase the vomitings returned as before. The child continued to grow thin ; a little diarrhoea showed itself, and the chest affection remained. The mother, now becoming alarmed, consented to employ a nurse : the milk of seven different women who successively offered themselves, although to all appearance good, presented beneath the microscope either mucus granular bodies, or other alterations ; therefore they were rejected. At length one was obtained whose milk microscopically was perfectly pure. Two days after taking this milk the vomitings entirely ceased, so also did the symptoms of asthma, and neither of them ever reappeared ; the child speedily became fat, strong, and well, and remains so to the present time.

At the conclusion of these cases, M. Girard remarks, that "without wishing to generalize too much, or to establish a theory from a few facts, is it not, however, logical to observe here a relation of cause and effect ? What do we see in the second case ? A severe and frequently fatal affection, which was rapidly on the increase, had resisted all rational means adopted for its removal, and which yielded with the greatest facility to a change in the milk with which the child was fed. We observe this disease to coincide with the ingestion of milk impure and of bad quality, and we witness its disappearance with a truly marvelous rapidity as soon as milk of good quality is administered. And in the third case, although the symptoms were somewhat different, yet we observe them to occur coincidently with the ingestion of impure milk, and to cease when milk of a pure quality is substituted. Is it unreasonable to conclude that certain severe pathological conditions may be



produced by alterations in the milk alone, and may be dissipated even when they have attained a very high degree, by a return to milk of good quality? It would be a point of much importance to ascertain whether these alterations in the condition of milk could at any time coincide with the maintenance of perfect health in the child; also it would be important to determine, if possible, whether a given alteration in milk most commonly or constantly induces such or such a pathological affection. Thus of the two cases last narrated we observe that in one a granular state of the milk induced an aphthous affection (the muguet), whilst in the other, a mucous condition gave rise to symptoms referable to the stomach and to the lungs; at any rate that these states were coincident with such affections. Of course it is not meant to be here implied that the pathology of infants is entirely under the influence of milk, but it seems probable that many hitherto inexplicable conditions may be so, and, moreover, that they might be explained by a simple examination of this liquid."—*Ibid.*

5. *Turpentine in Purpura Hemorrhagica.*—The *Edinburgh Monthly Journal of Medical Science*, for December 1845, gives the history of two very interesting cases of purpura treated by large doses of turpentine. Dr. Neligan states that "it acts as a powerful cathartic, also possesses the property of checking hemorrhage, depending on an atonic state of the smaller blood-vessels, owing, probably, to its powers as a diffusible stimulant. In consequence of those views, I employed this remedy in four cases that afterwards came under my care while in charge of the district, and they all recovered. I prescribed the oil both in the form of draught and of enema; the usual dose for adults being from one ounce to an ounce and a half, and for children from two drachms to half an ounce, generally in combination with castor oil, to render its cathartic action more certain.

"Since that time I have employed oil of turpentine in every case of purpura which has been under my care, and its use has been invariably attended with beneficial results."—*N. Y. Jour. of Med. & Col. Sciences.*

6. "*On the danger of using certain washes in cases of Ulceration of the Cornea.* By Dr. Cunier.—We have already directed the attention of practitioners to this matter, by pointing out the serious consequences which may ensue from indulging in the common practice of uniting laudanum with the metallic salts of lead, silver, zinc, copper, cadmium, &c., in preparing collyria. From such combination, says the skilful ophthalmologist of Brussels, an insoluble meconate is precipitated, which, by the shaking of the wash when it is about to be used, may be brought into contact with the eye, and become incrustrated

in the ulceration of the cornea. The result of some recent experiments instituted by Dr. Cunier, at the request of M. Boyer, established beyond doubt the fact, that this decomposition does in reality take place, and that accidents likely to arise from it are such as were previously indicated by the experiments. That, in fact, the precipitate formed by the addition of laudanum to washes made with the sulphates of zinc, copper and cadmium, is less abundant than in those made with the acetate of lead or nitrate of silver; nevertheless, in the quantity in which it is produced, it suffices to cause incrustations in the membrane, when used for ulcerations of the cornea.

“In concluding his article, Dr. Cunier indicates a very simple means for avoiding this difficulty. It consists in taking the precaution, when ordering these collyria, to combine the metallic salt with a salt of morphia *of the same acid*; for instance, the acetate of morphia with the metallic acetates; the sulphate of morphia with the metallic sulphates, &c., &c. In this way the same clinical result is obtained, without the patient being exposed to the serious consequences which may arise from incrustations.”—*Gazette Médicale de Paris*, in *Ibid.*

7. “*Treatment of Baldness and Falling out of the Hair.*—Dr. Wilson recommends for falling out and loosening of the hair, to immerse the head in cold water, morning and night, to dry the hair thoroughly, and then bursh the scalp until a warm glow is produced. In women with long hair, the scalp is to be brushed until redness and a warm glow are produced, then wet the roots of the hair with one of the following lotions: I. R. Vinegar of cantharides ʒ ss., Eau de Cologne ʒ ij., rose water ʒ j., M.; or II. Eau de Cologne ʒ ij., tinct. cantharides ʒ ss., oil of nutmegs ʒ ss., ol. lavender, ten drops, M.; III. R. Mezerion bark ʒ j., horse-radish root ʒ j., boiling distilled vinegar, 0ss. Let it stand for a week and strain. If the lotion produce smarting or tenderness, the brush may be laid aside, but if no sensation is occasioned, the brushing should be resumed, and a second application of the lotion. This treatment should be practised once or twice a day, or at intervals of a few days, according to the state of the scalp; namely, if tender, less; if insensible, more frequently. The same treatment will prove successful in *baldness*; which, if it happen in patches, the skin should be well brushed with a soft tooth-brush, dipped in distilled vinegar, morning and evening. If either of the above lotions proves too irritating to the skin, use it in smaller quantity and less frequently. No. III. may be diluted with more distilled vinegar. Oil should be used to keep the skin soft and pliant.”—*On Healthy Skin*, p. 257. in *Ibid.*



8. *On Abstinence from Drinks in the Treatment of some diseases.*—Dr. Bourge thinks that the quantity of drink administered in disease is not a matter of indifference, that it ought to be regulated by the medical attendant, and should not be left to the taste of the patient or the caprice of the nurse.

Thus, in all affections accompanied by a predominance of the serous or aqueous element in the blood, this physician thinks that we ought to diminish very much the usual quantity of drink, or even to suppress it altogether. Such are, for example, cases of dropsy, profuse sweatings, chlorosis, suffocative catarrh, abundant diarrhoeas, diabetes, organic diseases of the heart, and, finally, asthma, whenever this malady owes its existence to a pathological condition of the central organ of the circulation.—*Dublin Hospital Gazette*, in *Boston Medical and Surgical Journal*.

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9. *Foreign Body in the Tongue for Thirty-two Years.*—A German soldier was wounded in the battle of Gross-Gorschen (2nd May, 1813) by a musket ball, which penetrated the left cheek, carrying away the four last molars of the upper jaw, and, passing through the tongue, made its exit through the left cheek, carrying away several teeth of the left side of the under jaw. The wounds healed in six weeks, and, except the loss of the teeth no other deformity remained but the cicatrix of the tongue, which did not impede his speaking or chewing. During the spring of the year, at which time the patient was subject to pulmonary and cerebral congestion, severe pains, with slight swelling of the tongue, came on, to which was added, in the year 1829, a small swelling of its right side, which suppurated and discharged thin matter, after which it gradually healed. On the 2d of May, 1845, a similar swelling made its appearance in the same place, which opened without discharging any matter, and after some days, what appeared to be a small piece of bone presented itself in the opening, which, on being removed, proved to be the second molar tooth, which had penetrated the tongue from the musket shot 32 years previously, and had during the whole time caused no great inconvenience. The roots of the tooth were broken off by the neck, and the whole surface covered by calcareous deposite.—*Oester Medecin. Wochenschrift*, in *Ibid*.

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10. *Diabetes Mellitus.*—Mr. Hodges, of Downpatrick, narrates the case of a girl, 17 years of age, laboring under diabetes mellitus, the result of a severe fall, in which he adopted, with apparent success, the nitrogenizing plan of treatment proposed by Dr. Barlow, in the *Guy Hospital Reports*, and also advised by M. Bouchardat. He prescribed the sesquicarbonate of ammonia in five grain doses every three hours, with coffee and bacon for breakfast, animal food and cruciferous

vegetables for dinner, and further directed friction of the skin, and warm flannel clothing. The poor girl, who at the date of this prescription, was passing twenty-four pints of urine of the density 1.030, in the day and night, speedily improved; the secretion of urine diminished in four days to fourteen pints, the specific gravity continuing the same. This again fell in a few more days to eight pints, and that soon after to five, still, however, of the specific gravity of 1.030. By the end of the month, the quantity of urine was about four pints in the twenty-four hours—pulse 80; tongue clean, appetite natural, and the girl said she never enjoyed such good health. The report about six weeks afterwards was that she had gained strength and color, and considered herself quite recovered. The effect of the nitrogenizing treatment in this case was well marked, and such as to warrant its adoption in other cases. In this instance the density of the urine continued very nearly the same, until the sweet taste had disappeared, when it was reduced to 1.020, and the secretion exhibited the color and smell of healthy urine.—*Boston Med. and Sur. Journal.*

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11. *Supposed Death.*—Mr. A. S. Taylor mentions the following extraordinary case:—In October, 1830, a servant girl, who had retired to bed in apparently perfect health, was found the following morning, as it was supposed, dead. A surgeon who was sent for pronounced her to be certainly dead, and that she had probably been so some hours. A coroner's inquest was summoned for four o'clock of the same day to inquire into the cause of death, and directions were given that a post-mortem inspection of the body should be made in the meantime. The reporter of the case was requested to give his assistance. Accompanied by the surgeon who had been consulted, he went to the house about two o'clock for the purpose of making the inspection. The deceased was found lying on the bed, in an easy posture, on her left side, her body forming somewhat of a semi-circle. The countenance was pallid, but so perfectly placid and composed as to give her the appearance of being in a deep sleep. The heat of the body, although she must have been dead eight or ten hours, was not in the least diminished. The room was carefully searched, but nothing in the shape of poison, nor any other means of self-destruction, could be discovered. Every article of apparel lay around as it might be supposed to have been left by a person going to bed in perfect health as usual. The heat of the body not diminishing a vein was opened, and various stimuli applied, but without producing any sign of resuscitation. The respiratory and circulatory processes had ceased; no artery could be felt pulsating. Two hours had now elapsed since their arrival, and the parties still hesitated to perform the inspection, when



a message was sent to them stating that the jury were waiting for their evidence. The inspection was then commenced, but on moving the body for the purpose, the warmth and pliancy of the limbs were such, as to give the examiners the idea that they were inspecting a living subject. The internal cavities were so warm that a very copious steam issued from them when they were laid open. All the viscera were healthy, there were no signs of disease; nothing appeared to account for death, and from what they saw the inspectors regretted that they had not postponed the examination until the signs of death had been completely manifested. For obvious reasons, the name of the place where this extraordinary case occurred, and the name of the reporter, were suppressed. He had evidently communicated the details in a fit of remorse for his precipitancy.—*Lond. Med. Gaz. in Med. News and Library.*

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12. *On the treatment of Scabies.*—Every practitioner has had occasion to lament that the best remedy for this disease is one of so disgusting a nature as sulphur ointment. The profession, therefore, will be glad to learn from the following communication from Mr. Stiff, that the sulphur may be dispensed with, and that the essential portion of the compound is the adipose matter. Mr. Stiff states, that during the last six months he has frequently tested the action of sulphur in scabies, and considers that it may be cured without it. The truth of this assertion is rendered more evident, he thinks, by looking into the nature of the disease, and by examining the anatomy of the animal. The *acarus scabiei* belongs to a class of insects which breathe by the tracheæ, and its respiration is therefore suspended by smearing its body with any oleaginous substance. It is in this manner, then, the sulphur ointment acts, according to the author, and not in virtue of any specific action of the sulphur. In proof of this, he affirms that he has cured more than forty cases by inunction with simple lard, unaided by any other treatment. The average duration of treatment was only a week.—*Med. Times*, July 26, 1845, in *St. Louis Med. and Surg. Journal*.

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13. *Distinctive characters of Remittent, Typhoid, and Typhus Fevers.* By AUSTIN FLINT, M.D.—Nosological classifications of fevers, and the nomenclature of this class of diseases, have been as mutable as the numerous theories respecting the intimate pathological perversions constituting the febrile state. *Inflammatory, putrid, adynamic, bilious, yellow, jail, nervous, malignant, petechial, congestive, ataxic, gastro-enterite*, and a host of other names have been at different times, and by different writers, employed to distinguish forms of this disease, their application being based upon circumstances ascertained

or imagined, appertaining to their origin, location, peculiar complications, or visible appearances. It is easy to raise objections to each of these appellations, and, indeed, so long as the essential pathology of the febrile state remains unknown, so long will any arrangement and nomenclature be liable to be overturned and rendered obsolete by the ever changing results of progressive, pathological investigations. The distinction between periodic and continued fevers, being founded on obvious facts, has been retained for a long time, and will probably be permanent; but the different varieties of the latter are still subjects of discussion, and the occasion for much difference of doctrine. The term *typhus* has been in use ever since the time of Hippocrates, to denote a variety of fever characterized by peculiar conditions of the mind and general powers, which are expressed in its etymology. From its appropriateness and long use, it is not probable that this term will be soon abandoned; moreover, modern investigations have shown that the variety of the disease which it is intended to express is very distinctively marked, not only by the cerebral symptoms and general prostration, but by other and peculiar phenomena. Heretofore its application was not so well defined as it is now. By Armstrong, whose writings until lately were deemed of the highest authority, its latitude was extended so as to embrace, by means of qualifying adjectives, a great proportion of the cases of continued fever. It has now become more limited, embracing only a variety distinguished by peculiar symptoms, attended by a constant exanthema, and especially involving, as its remote cause, (in addition to contagion or infection) concentrated animal effluvia. It is exceedingly rare that an opportunity presents itself for witnessing specimens of true Typhus in this locality. It has fallen under the writer's observation in two well marked instances, only, during the last ten years. In one of these it occurred in the family of an Irish emigrant, who had recently arrived in this country. One of three children had been affected and died with it on their passage. The other two were attacked on their arrival in this place. The other instance occurred at the alms house near this city in the winter of 1840-41. Four cases transpired there in quick succession, under circumstances which rendered it almost certain that the origin of the disease was due to the malaria engendered by close congregation of the inmates of the house in unventilated apartments. These cases were reported for the Boston Med. and Surg. Journal, June, 1841.

The term *typhoid*, as applied to distinguish a certain class of fevers, is of recent date, and is not recognized in this sense by all pathologists. It originated with Louis, of Paris, whose researches into the history and comparative phenomena of the fevers of the Parisian hospitals, may be said to have



created a new era for this department of pathological science, and will remain an imperishable monument of unsparing industry, and professional zeal. The investigations of this truth loving, talented pathologist, in themselves of great value, are still more valuable as furnishing a new point of departure, and giving impulse to a movement, which has enlisted the efforts of a multitude of co-laborers in different countries. Louis ascertained that the fevers of Paris were allied to each other by a certain uniformity of lesions, the most constant of which were disorganization of the glands of Peyer, and a softened condition of the spleen. The same disease, by those who believe it to be in fact a local affection, of which the febrile symptoms are symptomatic, has been entitled *Dothinen-terite* or *follicular enteritis*. After these minute and comprehensive investigations in France, it became an interesting and important point of inquiry, in how far the same form of fever prevails in other countries. The attention of pathologists was soon directed to this point. In the British Islands it was found that in some of the cases of the, there so called, typhus fever, the descriptions of Louis were applicable, and in others they were not. Thence, it appears to be the prevailing opinion of British writers that the typhus and typhoid forms of fever are identical, but presented under different modifications. They do not generally acknowledge typhoid fever as a distinct form of the disease. In our country it has been ascertained by Jackson, Hale, Shattuck, and others of Boston, that the fever indigenous in New England, and known there as the common-continued, or autumnal fever, presents, in the phenomena before and after death, an entire similarity to the typhoid fever as portrayed by Louis. Gerhard, of Philadelphia, has also described a fever indigenous in that locality, identical with the typhoid; and, also, an epidemic typhus, which he traced to importation from England by means of English immigrants arriving there, in which the characteristic symptoms and lesions of typhoid fever were absent. He regards the two forms of fever as distinctly separable; and having had abundant opportunities to study the disease as it presents itself abroad and at home, his opinions are entitled to great consideration. Nevertheless, it is by no means regarded as settled by pathologists of this country, that the two forms of disease are intrinsically distinct. It is still a question *sub-judice* whether they are not one and the same disease, presented at different times and places under different modifications. While there is much weight of authority for the negative of this question, the numerical vote, we imagine, would be in favor of the affirmative.

We have extended these remarks farther than we intended when we commenced writing. Without entering into the controversial question just referred to, it had occurred to us

that it would be acceptable to our readers to present a brief synopsis of the distinctive characters appertaining to the forms of fever distinguished as TYPHUS and TYPHOID, and also those which belong to the common REMITTENT fever, as distinguished from both of the preceding. Whether we accept the doctrine which makes a specific distinction between the two forms, or that which regards them as varieties of the same species, there can be no doubt that the distinctions exist, and it is, to say the least, convenient to indicate this fact by different terms. The fever which generally prevails in this locality, is the common remittent, or, as it is miscalled, *bilious* fever. But there is reason to suppose that sporadic cases of typhoid fever occasionally occur, and we are liable, at any time, to meet with this or undoubted typhus in an epidemic form. Under these circumstances, it appears to us that there will be an advantage in having a synoptical view of these several forms of the disease which will admit of easy reference.

#### CHARACTERS DISTINGUISHING REMITTENT & TYPHOID FEVER.

*Typhoid*.—Access is gradual: a week or more with prodromic symptoms.

*Remittent*.—Access is generally sudden.

*Typhoid*.—Characterized by prostration and stupor ("typhoid symptoms") early in the disease.

*Remittent*.—The symptoms commonly called "typhoid," do not occur until quite late in the disease.

*Typhoid*.—Seldom a distinct chill, but only chilly sensations, which do not occur with periodicity.

*Remittent*.—Chills generally produced, and apt to recur several times with observance of periodicity.

*Typhoid*.—Diarrhoea one of the most constant symptoms; occurs early, and is apt to continue. Meteorism is generally present.

*Remittent*.—Diarrhoea only an occasional symptom. Meteorism of less frequent occurrence.

*Typhoid*.—Sordes of mouth, with low muttering delirium early in the disease.

*Remittent*.—These symptoms are not found until the latter part of the disease, and very often absent.

*Typhoid*.—Attacks subjects, almost invariably, under 30 years of age.

*Remittent*.—Shows no such discrimination.

*Typhoid*.—Cough and Expectoration (Bronchitis) are generally prominent symptoms.

*Remittent*.—Of much less frequency.

*Typhoid*.—Rose, or red spots (*taches rouges*) occur over abdomen and breast, from the 8th to 15th day.

*Remittent*.—Absent.



*Typhoid*.—Tongue is brown and dark.

*Remittent*.—Generally yellowish white. Nausea and vomiting are characteristic of its early stage; while they are less prominent, and often absent in typhoid. The conjunctiva is frequently yellow, and the urine impregnated with bile. The skin is apt to be yellow or sallow. These symptoms do not occur in typhoid. The mind, also, in remittents, is frequently unaffected; very rarely so in typhoid.

*Typhoid*.—Subsultus frequently present.

*Remittent*.—Rarely.

*Typhoid*.—Occurs rarely before November, sometimes in the latter part of October.

*Remittent*.—Occurs especially in August and September; unfrequent in October, and rarely afterward.

*Typhoid*.—Contagious and infectious.

*Remittent*.—No evidence that it is either.

*Typhoid*.—Presents after death disease of the Elliptical Plates, or Peyers glands, the mesenteric ganglions, and softening of spleen.

*Remittent*.—Spleen may be softened. The other lesions mentioned, rare. Stomach and Liver almost invariably evince disease. (Stewardson.) A fact which often enables us to confirm our diagnosis of remittent fever at its close, or after the case has terminated, is this: It is very apt to resolve itself into an intermittent form; and, in a very large proportion of cases, individuals who have had remittent fever, experience an attack of intermittent within a twelve month after their recovery. This fact may, also, serve to correct a diagnosis of typhoid fever if it has been incorrectly made.

#### CHARACTERS DISTINGUISHING TYPHUS AND TYPHOID FEVER.

The following is an abstract of the diagnostic symptoms distinguishing the two forms of fever above mentioned, presented by Dr. Gerhard, in his lecture on the subject, published in connection with the lectures of Dr. Graves, of Dublin. The descriptions are abbreviated as much as practicable. He classes the symptoms under four heads.

#### CEREBRAL AND NERVOUS SYMPTOMS.

*Typhoid*.—Loss of strength and prostration very early in the disease. Singing in ears, vertigo, epistaxis. Pains in head and limbs not so violent as in intermittent and remittent fevers. Chillness, but not defined chill. Brain symptoms increase slowly. Delirium rarely entirely wanting; sometimes only at night.

*Typhus*.—Stupor prominent from the first. Patient becomes comatose at an early period. Delirium always of the still, muttering kind.

#### OF THE SKIN.

*Typhoid*.—Rose spots fewer in number, often only six or

eight; rarely more than thirty; rather larger, elliptical, and more elevated.

*Typhus*.—Exanthema extends over the whole body. Papulæ are rounded, varying in size from an imperceptible point to breadth of a line. Occurs on the 3d day. May continue 12 or 14 days—generally only 5.

#### ABDOMINAL ORGANS.

*Typhoid*.—Diarrhœa after a few days, a frequent, but not invariable symptom. Meteorism, or abdominal pains generally present.

*Typhus*.—These symptoms are not present excepting as rare and accidental complications. Thirst more marked.

#### THORACIC SYMPTOMS.

*Typhoid*.—Some congestion of smaller bronchial tubes, which may pass into bronchitis, or pneumonitis.

*Typhus*.—Congestion different: apparently more dependent on the state of the blood, which obeys the laws of gravitation—the dependent part always full of blood. Pulse more frequent. Eye more dull, heavy, and blood-shot.

He states the following general circumstances:

Typhus spares no age; prevails as an epidemic, extending by contagion, or direct propagation from an infected individual.

Typhoid rarely assumes this character; rarely epidemic, and scarcely infectious, *excepting when prevailing epidemically*.

The medical physiognomy is very diagnostic, but difficult to be described.

To these it is to be added that the characteristic intestinal lesion of typhoid fever, or, to use the language of Louis, its anatomical character, while it is essential to constitute this disease, is an infrequent complication only in typhus.

In view of the acknowledged ability of Dr. Gerhard as a pathologist, his extensive and peculiar opportunities for clinical observation, and the fact that he has advocated the doctrine of an essential distinction between these two forms of fever, it seems fair to conclude that he would submit as strong a contrast of diagnostic symptoms as will comport with a rigid adherence to an exact description of phenomena. The practical reader will perhaps be enabled, from the preceding comparison, to form an opinion whether the antithetic characters are sufficient to constitute a radical distinction, or whether they are not of so kindred a nature as to denote the same disease under somewhat different aspects. For our own part we incline to the latter view, although we admit that the circumstances indicated, enable the practitioner to determine in most cases, without much trouble, whether the disease be more appropriately—agreeably to this classification—called typhus or typhoid; and that it is convenient and useful to make the distinction. In short, while all must acknowledge



that they are in nearness of kin,—cousin-germans—we are disposed to regard them as even more closely allied to each other, being, if not one and the same individual, at least pathological twin-brothers.—*Buff. Med. Jour.*, January, 1846.

November, 1845.

14. *On the efficacy of Cold Astringent Injections into the cavity of the Uterus in arresting Uterine Hæmorrhage.* By L. G. RAY, M. D., of Paris, Ky.—At the commencement of our practice, having failed, in some cases, to arrest this fearful malady, we were induced to resort to a remedy, which, though novel in its application, seemed peculiarly fitted to meet the indications of cure, by arresting *instantly* the flow of blood. It is simple, easily applied, and *most efficacious* in its results, and hence should command the attention of the profession. We cannot better illustrate its effects than by giving a case.

Mrs. F——, æt. 43, had menstruated regularly when not pregnant, missed two periods, and was inclined to the opinion that she was again pregnant. Was attacked with uterine hæmorrhage, which soon became alarming. We saw her six hours after her attack; found her with feeble, frequent (uncountable) pulse, anxious countenance, hurried respiration, extremities and whole surface cold, covered with a dripping and cold perspiration, partial syncope taking place at every movement she made, without pain, os tinæ soft and relaxed as also the body, hæmorrhage still progressing. In this state of things we used, *instanter*, a saturated solution of sub. acet. plumb. in acetic acid, cold; which we threw into the cavity of uterus by a curved pipe womb syringe; pain of a sharp character instantly ensued, followed by a sudden contraction of uterus, and *entire arrest* of the alarming hæmorrhage. Brandy, with a little tr. opi., internally, frictions to surface, and sinapism, to extremities, restored heat and comfort, in a short time to the almost dying lady. Six hours after use of injection, found her comfortable, cheerful, pulse a little more frequent than natural. No return of hæmorrhage.\* Ordered an occasional aperient, and rest. Mur. tr. ferri, in doses of 30 drops thrice daily; a little brandy at meals, with generous diet. This lady recovered her usual health and vigor in a few weeks without any bad effects from the use of injection.

This practice we have followed for the last fifteen years, in alarming cases of uterine hæmorrhage, without any unpleasant consequences following, and with the *most complete and perfect success*. We have used it in hæmorrhages following and accompanying abortion, and from retained placenta, with equal success,—and we have no doubt it may be safely and suc-

\* In this case, it must be borne in mind that brandy, laudanum, and various other remedies had been used before we arrived, without one particle of relief.

cessfully used in all cases of uterine hæmorrhage accompanied with a relaxed and atonic state of the organ.

Since writing out this case, we have used the remedy in a case of engorged uterus with some tenderness, accompanied with uncontrollable hæmorrhage; and although it succeeded in arresting the hæmorrhage, it caused our patient most intense pain, which was only relieved by two tea-spoonsful of acet. tr. opium, with a  $\frac{1}{2}$  grain suph. morphia. After this, she had a speedy recovery.

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15. *Dr. Lee's objections to the practice of extracting the Placenta in cases of unavoidable Uterine Hemorrhage.*—In the first case of placental presentation which came under my observation, a great gush of blood suddenly took place from the uterus, and the woman was dead before she could be seen by any practitioner. In at least twenty other cases which I have since witnessed, the first attack of hemorrhage was so sudden and profuse as to endanger life, and in several reduced the patients to a condition which rendered recovery impossible, though the most prompt and energetic treatment was employed. In all these cases the blood could not have escaped from the mother through the medium of the placenta, but from the mouths of the great veins left open in the lining membrane of the uterus by the detachment of the placenta, in consequence of which a direct communication was established between the cavity of the uterus and the cavities of the heart. If the whole mass of maternal blood contained in the cellular or cavernous structure of the placenta had flowed out in a moment, it would not have amounted to one-hundredth part of the blood which escaped from the uterus in the space of a few minutes in these cases. The cellular or cancerous structure of the placenta, which resembles a sponge, renders it impossible that any gush of blood could have taken place from the partially exposed decidual veins on the surface of the organ even if these were not constructed, as they are, like valves, and close immediately on the separation of the placental decidua from the uterus. The peculiar structure of the placenta favors the coagulation of the blood in its cells, when any portion of it is detached in the same way as hemorrhage is arrested in cut vessels by blood effused into the cellular membrane around the vessel. The cavernous structure of the portion of detached placenta is consequently invariably found to be filled with coagulated blood, and the orifices of the decidual veins covered with coagula. But the manner in which the maternal blood enters the placenta demonstrates that the great torrents of maternal blood which suddenly rush from the uterus in cases of unavoidable hemorrhage, do not proceed from the placenta, but from the vessels opened in the lining membrane of the uterus, as all the most distinguished practitioners



in midwifery believe. The small curling arteries in the placental decidua, which convey the whole of the maternal blood that enters the placenta, could not possibly replenish the organ for a very considerable period if the maternal blood were entirely to escape in a few seconds from the exposed decidual veins. The foetus would also invariably perish in cases of placental presentation, after the first attack of hemorrhage, if this were the fact, which is known to be quite the reverse.—*Medical Gazette.*

16. *Death from inoculation with matter from an ulcer succeeding the vaccine vesicle.*—On the fourteenth day from vaccination, when there was no vaccine matter present, but a foul secretion, this fluid was taken by needles, and inserted into the arms of two children by their mother or some one present. The operation was performed on the 29th of Sept. at 8½ o'clock, A. M. At 8 o'clock P. M., both were taken ill suddenly, with much restlessness and great heat, the same symptoms in both. At 10 o'clock P. M., symptoms somewhat worse; but the parents thinking they would soon be better, no medical aid was called until 2 o'clock at night, fourteen hours after vaccination, as they termed it, when the infant, 18 months old, became convulsed. Dr. Allen, of this city, being near, was called in. Spasms continuing, at 8 o'clock, Sept. 30th, I met Dr. A., and we continued in attendance till 10½ o'clock, when it expired, twenty-six hours after inoculation. The virus corroded through the true skin in this short period, and arm swollen.

The other child, about four years old, continued very sick; arm swollen, red and painful, with a white ulcer, evidently extended through the true skin. There was no vaccine vesicle or scab, or anything like it, formed on the arm. The ulcer continued to discharge until about the 10th of January, 1846; and on the 19th of January, the last scab fell off, leaving an unsound appearance, and a hardness in the cellular membrane beneath. It is evident that a virulent poison was introduced into the arms of these children.

DANIEL MOWE.

Lowell, Feb. 5, 1846.

[*Boston Med. and Surg. Jour.*

17. *Vaccine Aphorisms.*—Some very excellent observations have recently appeared in the N. Hampshire Patriot, on the value of vaccination and the signs by which its perfect condition and protective influence may be known. The article was one that would have been creditable to any practitioner, and should, therefore, have had its place in a medical journal, where it would have been seen by five hundred practitioners where it is now noticed by one. The concluding aphorisms so entirely meet our individual views, that we have transferred them to our own pages—regretting, at the same time, that

it is impossible to give credit for them to the close observer from whom they emanated, as he has concealed his name under the no-meaning signature of T.

1. A "scar" of the cowpox, having all the characteristic marks, and perfectly distinct, is not to be relied upon as an evidence of certain protection, unless proved by revaccination.

2. *Complete* vaccination forever secures an immunity to the individual from infection of the smallpox, varioloid, and from specific effects of cowpox.

3. In primary successful vaccinations, there is little evidence of the operation of the virus, before the fifth or 6th day, while in subsequent vaccinations, if the first be *complete*, there is speedy inflammation and itching, and the whole disappears at about the time the first should distinctly appear.

4. The most rigid scrutiny is requisite in the selection of matter, that it be collected at the right period of the vesicle, and from individuals of robust health, free from any cutaneous or other disorders, and of these conditions the physician is the only competent judge.

5. Cutaneous diseases (as perhaps visceral and other disorders,) seriously modify the character of the genuine vaccine affection, both as it regards the purity of the virus, for transferring the disease, and also the degree of security afforded the vaccinated, in consequence of impaired susceptibility.

6. *Re-vaccinate in all cases*, and repeat the operation so long as it specifically affects the system.



## TO READERS AND CORRESPONDENTS.

We have received:---Lectures on the Nature and Treatment of Deformities. By R. W. TAMPLIN, F. R. C. L. E. In Select Medical Library. Edited by JOHN BELL, M.D. (From the Publishers.)

Essay on the Philosophy of Vitality as contra-distinguished from Chemical and Mechanical Philosophy, and of the Modus Operandi of Remedial Agents. By MARTYN PAINE, M. D., Professor of the Institutes of Medicine and Materia Medica in the University of New York, &c. (From the Author.)

New Elements of Operative Surgery. By ALFRED A. L. M. VELPEAU. Translated by P. S. TOWNSEND, M. D. Under the supervision of Dr. MOTT. Vol. II.

Transactions of the Medical Society of the State of New York. Vol. VI, Part 3. A defence of the Medical Profession of the United States. By MARTYN PAINE, A. M., M. D., Professor, &c. (From the Author.)

Anniversary Address to the New York Medical and Surgical Society, January 3d, 1846. By F. CAMPBELL STEWART, M. D.

Catalogue of Jefferson Medical College; Session 1845-6.

J. & H. G. Langley's Medical Catalogue for 1846.

Boston Medical and Surgical Journal to April 15th. (In Exchange.)

New York Journal of Medicine and the Collateral Sciences to March, 1846. (In Exchange.)

The American Journal of Insanity, for April, 1846. (In Exchange.)

The American Journal and Library of Dental Science, for March, 1846. (In Exchange.)

The Medical News and Library, to April, 1846. (In Exchange.)

The Western Journal of Medicine and Surgery, to April, 1846. (In Exchange.)

The Journal of Health and Monthly Miscellany, for April, 1846. (In Exchange.)

The Medical Examiner, to January, 1846. (In Exchange.)

Southern Medical and Surgical Journal, to April, 1846. (In Exchange.)

The Bulletin of Medical Science, to April, 1846. (In Exchange.)

The Buffalo Medical Journal, to April, 1846. (In Exchange.)

The Western Lancet, to February, 1846. (In Exchange.)

The Missouri Medical and Surgical Journal, to March, 1846. (In Exchange.)

The St. Louis Medical and Surgical Journal, to April, 1846. (In Exchange.)

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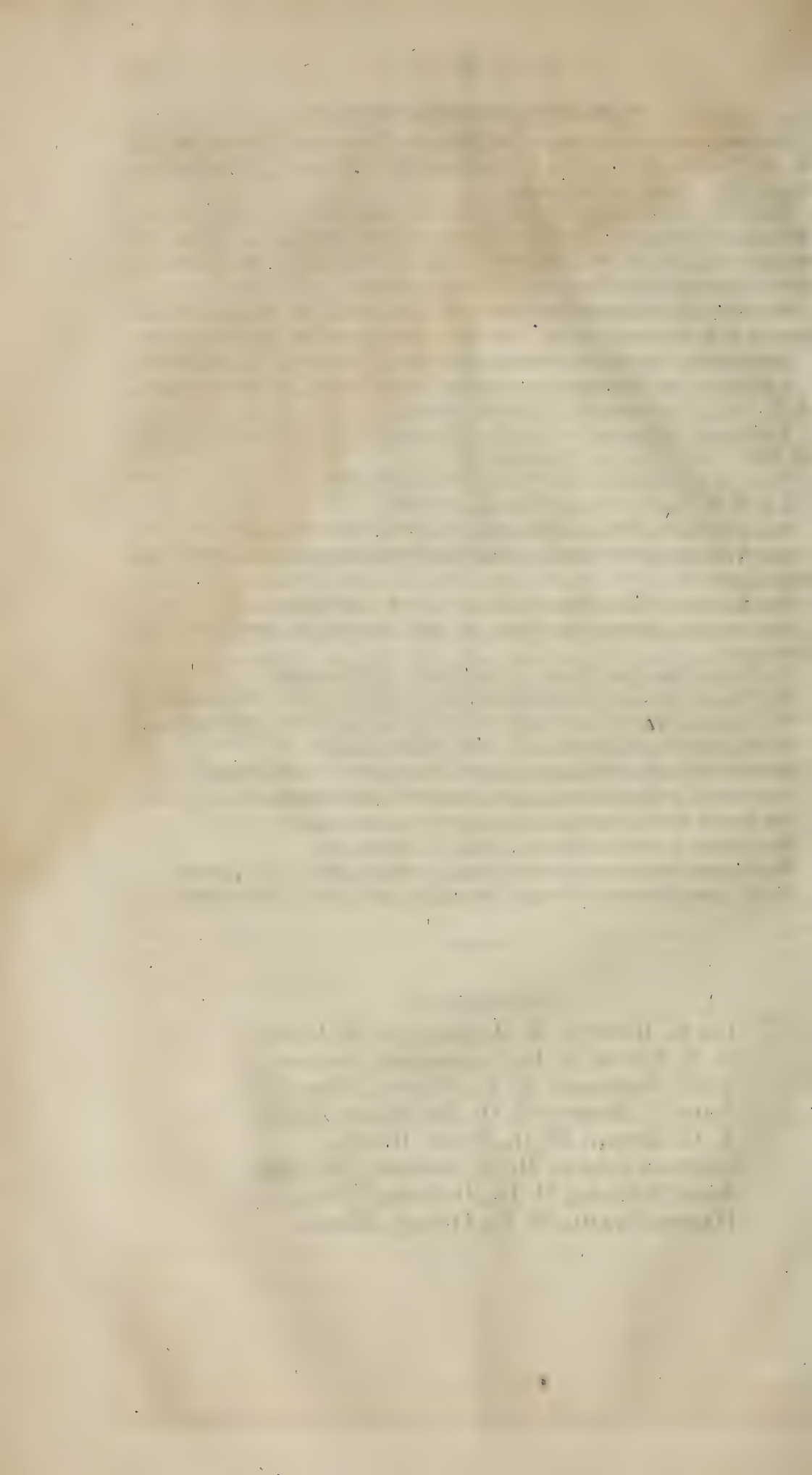
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### PART I.—ORIGINAL COMMUNICATIONS.

#### ARTICLE I.

*An Essay on Delirium Tremens.* By Lieut. EDWIN RAMSEY LONG, M. D., U. S. Army.

[The following Essay, left in manuscript by our lamented friend, whose obituary appeared in our last No., though unpretending in its character, is intrinsically worthy of an attentive perusal by all, and will be especially acceptable to his numerous friends, who may wish to possess a memorial of one, estimable both as a companion, and an enthusiastic votary of science.

In it are expressed his views upon the nature and treatment of Delirium Tremens—the results of numerous observations made upon this disease, during his long and honorable official connection with the army of the United States, and, though made previous to his becoming a member of the medical profession, the conclusions, as will be seen, harmonize fully with views entertained by many of our most experienced and scientific men. W. B. H.]

*Delirium Tremens.*—As there has existed, and does still exist, a great diversity of opinion in the Medical Profession, as to the pathology and treatment of this disease, I deem it an appropriate subject for some speculations of my own. Although I have not the presumption to believe that I can set at rest the various mooted questions involved, yet, perhaps, I may at least, by a careful examination of the subject, be able to expose some unfounded theories which have obtained some repute, and which, unfortunately, have in some instances given

rise to very injudicious treatment. In order to do this I shall make a sketch of the various phenomena exhibited in the course of the disease; of the several modes of treatment that have been most in vogue; and of the facts brought to light by autopsical researches.

In considering the several modes of treatment, in connection with its true pathology, we will be forcibly struck with the wide difference of opinion, entertained by men of undoubted ability, of great scientific acquirements, and long experience in the treatment of this malady. And it is not asserting too much, to say that there are few maladies which exhibit in their history and treatment, so much empiricism and professional dogmatism; or which so forcibly exemplifies the folly of "prescribing for names instead of diseases." While one asserts that it is a disease of simple debility, requiring no other treatment than simple stimulants, another affirms—not so, but we must view it as a case of nervous irritability, calling for the specific use of opiates. Another declares that it is nothing more nor less than an acute inflammation, and should be treated accordingly; and a fourth gravely tells us that it requires no treatment at all, but if let alone will heal itself. How are these conflicting opinions to be reconciled? Are they the opinions of men whose standing in society entitles them to respect? To satisfy ourselves on this point, we have only to refer to the standard text books of Medical Schools. But why so great a diversity of opinion? Is the disease of such a mysterious character as to elude the scrutiny of the laborious investigations that have from time to time been bestowed upon it? Have the theorists based their speculations upon facts discovered by faithful post-mortem examinations? I am far from believing that all of these were empirical in their practice, although it cannot be denied, that among a vast number of the profession, opium has been as much regarded as a specific for delirium tremens, as quinia for febrile intermittents. But I think the great error has been in individuals basing their theory and practice solely upon their own observation and experience, instead of availing themselves of the more extended observations of the profession at large. For instance, we hear of one that has made many post-mortem examinations of the victims of this disease, who has invariably found unequivocal evidence of acute gastritis,—he con-



cludes that this is the true character of the disease, and in future directs his treatment to this peculiar lesion of the stomach. Another has made as many examinations and finds the same conclusive evidence of cerebritis or meningitis, and of course recommends another treatment. A third has seen many cases, terminating fatally, which did not exhibit a single vestige of organic lesion. Notwithstanding these opposing views, I am of the opinion, that upon taking a more general view of all the facts developed by modern pathology, that we can in some measure reconcile them to each other, notwithstanding the conflicting and opposing deductions that have been drawn from them. And if we are not so fortunate as to determine with certainty the true pathology of the disease, upon which to base a rational course of treatment, we, at least, may be able to say what it *is not*, if we cannot precisely say what *it is*; and to establish some landmarks, which, if they serve not to point out with exactness the true channel to the adventurer, may admonish him of the localities of certain quicksands that might endanger his craft, or prejudice the interest of his proprietors. And it may not be amiss here to observe, that notwithstanding the inestimable advantages derived from the labors of late pathologists by the enlightened practitioner, and while we would recommend to every one, to regard this branch of his profession as the most faithful pilot to direct him through the labyrinths of theories and speculations, through which he must inevitably pass in his pursuit of truth, yet it would be hazardous for any one to assert whether the treatment of delirium has been benefitted or not, by the disclosures of morbid anatomy, from the fact before referred to, that many have predicated theories upon their own observations, instead of those made in common by the profession. But let us proceed to our investigation. “*Delirium tremens* (says Eberle) is a variety of mental disease characterized by inquietude, tremors, continued watchfulness, cool skin, perspiration, delirious loquacity, and sensorial illusions.” Again he says: “The disease commences with lassitude, general indisposition, a feeling of *distress in the epigastrium*, nausea and vomiting, a sense of confusion in the head, a want of sleep, and anxious expression of countenance.”

“So long as the customary quantity of stimulus is taken, it seldom or never supervenes, but if from sickness, or tempo-

rary disgust, the ordinary potations are left off, the activity of the brain becomes morbidly increased, and mental disorders, in many instances arise." "It is important to bear in mind, (says Dr. Coates,) that the disease is the result, not of the application, but of the sudden intermission of these articles. At a certain stage of the disease the patient begins to manifest mental disorders, become loquacious, says he feels well, and is tormented with a continued succession of various alarming, disgusting, and ludicrous apparitions.

"When the disease supervenes upon a pleurisy, or other inflammatory affection accompanied with pain, the principle disease seems to disappear, even to the eye of the experienced practitioner, to be reproduced in a later period, when the brain and nerves regain their ordinary tranquility. The pulse in this disease, varies considerably in different cases. In some instances it is *hard, full, and frequent*; but much more commonly, soft, full, and quick, without strength or tension. The tongue is humid, and covered with a white fur. The *bowels* are *torpid*, and there is usually a *loathing of food* through the whole of the disease, but the *thirst for cold drinks* is *almost always* considerable. It appears to be generally conceded that the disease has its primary and essential location in the sensorium commune, and is wholly independent of inflammation of this organ. It would seem to consist of a purely dynamic disorder—a morbid activity of the brain, from the sudden abstraction of ordinary stimulus, by which its excitability had been long depressed or blunted." Dr. Coates considers it as consisting of a heightened activity of the sensorium, from a generation of an inordinate activity of the brain.

Dr. Klapp has published a number of cases with observations, going to show that the proximate cause or seat of the disease is *in the stomach*. It is asserted that dissections show that traces of previous inflammation existed in the stomach, and nearly in all instances, nausea, vomiting, and foul tongue occur, and that the operation of an emetic brings off a viscid, light brown fluid, of the *consistence of tar*, from the stomach, and that finally, this disease yields more easily and frequently under this treatment than any other. "With regard to the foul tongue and other evidences of gastritis, Dr. Coates found them generally absent." "Dr. Sutton mentions them only as symptoms accompanying the disease, when it occurred in



connection with other diseases." Dr. Stokes says, "you have all seen cases of delirium tremens, but perhaps are not aware that it may arise under two opposite classes of causes. In some cases a patient who is in the habit of taking wine or spirituous liquors every day in considerable quantities, meets with an accident, or gets an attack of fever. He is confined to his bed, put on an antiphlogistic treatment, his liquor stopped, and an attack of delirium tremens comes on, and symptoms of high cerebral excitement appear. Another person not in the habit of frequent intoxication, takes to a fit of drinking, and is attacked with delirium tremens. In the first case, the delirium arises from the want of the accustomed stimulus—in the second the disease is different, and consequently, in this view, it would be a manifest departure from sound practice, to treat both cases alike. In the first variety, when the disease arises from the want of the accustomed stimulus, there is no doubt that patients have been cured by the administration of the usual stimulus. Indeed, this seems the best mode of treating this form of disease. But is it proper or admissible in the second variety, when the disease is caused by an occasional excess in the use of ardent spirits, yet in many cases, a man who has been attacked by delirium tremens after a violent debauch, is ordered a quantity of porter, wine, brandy, or opium, and the worse he gets the more is the quantity of stimulants increased. Let us consider what the state of the case is. A large quantity of stimulant liquors have been taken into the stomach, the mucous surface of that organ is now in a state of intense irritation, the brain and nervous system in a highly excited condition. Are we to continue this stimulation? What would be the obvious result? Increased gastritis, encephalitis, or meningitis. This supervention of an inflammatory condition of the brain is not understood by many physicians. They go on administering stimulant after stimulant, totally unconscious that they are bringing on decided cerebral inflammation. I have witnessed the dissection of a great many persons who died of delirium tremens, and one of the most common results of the dissection was unequivocal marks of inflammation, both in the *stomach* and *brain*. But there have been cases in which no distinct mark of gastric inflammation could be discovered. In all

cases, however, when the delirium supervenes on an excessive debauch, there is more or less of gastritis, and though a patient may occasionally recover under such circumstances, under the stimulant treatment, yet I am convinced the physician will frequently do harm by adopting it. This complication of gastritis, is exceedingly curious in another point of view, as it illustrates how completely the local symptoms are placed in abeyance, and as it were, lost during the prevalence of the strong sympathetic irritation. The patients abdomen may not be tender, the tongue may not be red, the symptoms present may be indicative of cerebral affection, and yet a gastric inflammation be going on all the time, and all the appearance of cerebral disease be removed by treatment calculated to subdue an acute gastritis. Is all this theory? No. For we have practised on this principle of treatment with extraordinary success in the Meath Hospital; we have seen violent outrageous cases of delirium subside by the application of a few leeches and internal use of iced water, without a single drop of laudanum. On the other hand, when a stimulating plan of treatment was employed, and the patient died, we have most commonly found inflammation in two places—in the stomach, and in the brain or its membranes. The rule, then, is, in a case of delirium from the want of the customary stimulus, use the stimulant and opiate treatment; but when it comes on after an occasional violent debauch, such remedies must be extremely improper. Adopt here everything calculated to remove violent gastric irritation."

With regard to blood-letting, an eminent author informs us that when it has been principally relied on, he has observed a fatal termination of the disease in almost every case. Dr. Armstrong has known, in cases where the constitution was not shattered by repeated intoxication, early and moderate blood-letting of much use. Another says emetics deserve more attention as curative means in delirium tremens, than other remedies that have been employed, with the exception of opium. "Cupping about the head, may, under some circumstances prove useful." "In an instance, I, (Dr. Eberlie) attended about six months since, when there was turgescence of the head, and a state of delirium approaching raving phrenitis, immediate and decided benefit was derived from cupping."



"Blisters will also do good when applied to the legs, in cases attended with violent cerebral excitement."

From the foregoing extracts which set forth the views of some of the most eminent authors, relative to the pathology and treatment of delirium tremens, I make the following deductions, viz: 1st. In *every* case there is found a peculiar morbid state of the sensorium commune, either dynamic or adynamic, manifested by delirium, tremors, sleeplessness and mental illusions. 2d. In a vast proportion of the cases, decided evidences of gastritis, or other more serious lesions of the stomach, such as ulceration, scirrhus, &c., are found.

3d. That in other cases, where there is no marks of inflammation or ulceration of the stomach, there is noted a marked derangement of the digestive apparatus, such as foul tongue, nausea, &c.

4th. Not unfrequently traces of active inflammation of the brain, or its meninges, have been developed by autopsical researches.

5th. Torpor and impacted state of the bowels are not unusual, they being filled with feculent matter, and irritating secretions.

Such, then, being the prominent features of the disease, what is its pathology or essential nature? To determine this we must proceed on the principle of exclusion. It is, very obviously, an organic lesion of the stomach, or other part of the alimentary canal,—of the brain, or a peculiar morbid excitement of the nervous system, independent of inflammation in any tissues of the body.

Commencing with the first of them, we have it well authenticated, that cases of this disease which have terminated fatally, have been observed where no evidences of inflammation of the stomach was to be found, the same may be said of the intestines, and the brain, with its meninges; hence we conclude that the disease does not necessarily involve a lesion of either of these organs. But is there a case on record, in which the peculiar morbid excitement of the nervous system, as manifested by signs just enumerated, was not prominently and *invariably* presented? If not, are we not warranted in the conclusion, that this is the pathognomonic trait of the disease, without which it has no existence. All the other most prominent and common associations, may be wanting, and still

these phenomena are found, the former are not therefore essential parts of the disease, but may, and frequently do accompany it. For, although it may be said that a case of delirium tremens, in which they are not found is extremely rare, yet *one* well established case, is of itself sufficient to demonstrate that these lesions are not essential to the disease; we therefore assume that the malady is essentially one of the nervous system.

We are now ready to consider the various methods of treatment that have been most commended. In view of the facts that we have just exhibited, we have a disease of the nervous system, but almost invariably complicated with inflammation of the brain or stomach, with torpidity and loaded condition of the intestinal tube, for which, some have recommended the exclusive use of stimulants, others, opiates, others again, emetics, and a fourth class, equally strenuously advocating the antiphlogistic plan, not applying one or the other according to the varied symptoms of the case, but *one* and alone, single handed, decrying all others as useless or decidedly pernicious. Such practice is too absurd to need comment. If instead of pursuing this course, we adopt the more rational one of discarding all empiricism, and selecting remedies according to the varied features of the case, we will find that it is no difficult matter to determine upon a plan of treatment that will not disappoint our expectations in the result. In the first place, if we meet with a simple uncomplicated case of delirium tremens, as the disease is located in the nervous system, we have only to resort to such remedies as experience has found to be most effectual in controlling nervous symptoms, such as opiates, camphor, and the like. But as we seldom meet with such cases, but find them most usually connected with organic lesions of other tissues, we must primarily direct our attention to the investigation of these. By referring to the foregoing extracts we see cerebritis, gastritis, and impacted bowels are the most frequent morbid associations, and consequently our first object is the removal of them, using for this purpose those remedial agents that are best suited to accomplish these ends.

As gastritis is the *most* common complication, with a full abdomen, we should make it a primary consideration to relieve the latter without aggravating the former. For this reason we



should not use cathartics, but give the preference to enemata, inasmuch as cathartics will inevitably increase the irritability of the stomach, and if inflamed, may occasion an incurable lesion of that organ. But in the event of there being a full, hard, tense pulse, bleeding should never be omitted, and if, superadded to this, there are marks of a strong determination of blood to the head, cups, or leeches will be advisable. Venesection, if practised, should precede other remedies. Should, however, a foul tongue, nausea, and other symptoms manifest a general derangement of the digestive organs, and no indication of gastritis be found, an emetic will do essential service. Having, then, premised venesection and emesis, when warranted by the symptoms just given, we will find no remedy so effectual as a moderately stimulating injunction, by bringing away the vitiated matters lodged in the intestinal tube, which, perhaps, more than any other contingent disorder, tends to keep up the nervous irritability and mental hallucinations. Having cleared the bowels, we should next address the appropriate remedies to the stomach, to subdue any inflammation that may be indicated, such as iced water and leeches, bearing in mind, however, that we use not this, nor any other remedy without a special indication by present symptoms, unless, perhaps, we have reason to suspect the existence of such disease that is masked by the predominant power of cerebral inflammation, and in this malady, as gastritis, is not unfrequently covered by inflammation of the brain, it may not be amiss to use some counter irritants or revulsions to the stomach, as a precautionary remedy.

After removing by suitable remedies, all contingent or accidental disorders that we may find connected with the primary malady, which, as we have before stated, seems to be undoubtedly located in the nerves, we may now venture to administer such remedial agents as we have found to be most effectual in controlling morbid derangements of these tissues, such as opium, camphor, asafoetida, &c., and if we have been successful in the removal of what may be termed the collateral or contingent disorders, we will find that the primary or nervous malady will readily yield to this treatment, and our patient will soon fall into a refreshing sleep, that may be regarded as a favorable crisis of the delirium.

A moment's consideration of the several modes of treatment

that have found most favor with practitioners, will show us at once why they have sometimes been successful, and at others totally inefficient or decidedly prejudicial. The truth is, that each of them is good in its place, and no one of them always applicable. It would be just as absurd to use opiates or stimulants invariably in all cases of this disease, as it would be to apply the like remedies to all cases of remittent fever, and precisely for the same reasons. We must discard all notions of empiricism, and be governed by established maxims of therapeutics, as much in this as in other maladies.

We are surprised to see that even Dr. Stokes seems to think that there are only two remedies necessary in this malady, one to remove gastritis, the other, the class of stimulants applicable to an opposite condition of the system. Now I contend, that there are cases where it would not be proper to use either of them; for instance, when the bowels are torpid and full of vitiated accumulations, what effect would iced water and leeches, to the stomach, on the one hand, or enormous doses of opium, on the other, have in subduing the nervous excitability? This is a case calling for enema. Hence we see the propriety of selecting, in every case, such remedies as are indicated by present symptoms.

From the foregoing we conclude, that not the stimulating—the bleeding—the purging—or the antiphlogistic treatment is to be recommended *singly* or exclusively, but *each* or *all* of them as circumstances may render necessary and proper.

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## ARTICLE II.

*Amputations for Scrofulous Diseases of the Joints.* By DANIEL BRAINARD, M. D., Professor of Surgery in the Rush Medical College.

Among the most certain and cheering signs of the progress of Surgery, is the fact that many diseases, supposed formerly to require operations for their cure, are now treated with equal success without a resort to the knife.

Scrofulous disease of the larger articulations is among this number. It is but a few years since, nearly every case of it was supposed to require amputation, and surgeons were enjoined to resort to it early, in order to prevent the effects of



extensive suppuration. More recently this rule was modified and we were directed to wait until, from the effects of disease, the life of the patient was in imminent danger, when suppuration, emaciation, diarrhoea, and night sweats, were supposed to portend impending dissolution. Quite lately it has been questioned whether, even under these circumstances, recovery without an operation might not take place; and the advocates of this opinion are at present numerous, and are yearly increasing. Convinced that this is the case, and knowing that limbs are still occasionally sacrificed, even before suppuration has taken place, we propose here to detail some cases where recovery without amputation has taken place, under circumstances, where from the established rules of practice, this might have been supposed to be impossible.

The following extracts from standard authors, may be considered as expressing the general opinion of surgeons at the present time.

“When the disease has got into this state, the constant pain, irritation, and discharge, bring on hectic symptoms of the most destructive kind, such as total loss of appetite, rest and strength, profuse night sweats, and as profuse purging, which foil all the efforts of medicine, and bring the patient to the brink of destruction.” “It is an incontestible truth, that patients thus situated must perish, and it is equally true, that numbers in the same circumstances, by submitting to the operation, have recovered vigorous health.”—*Cooper's Surgical Dict.* Vol. I. Art. Amputation.

“If, then, the articular capsule is fungus or full of pus, if fistulous ulcers transmit externally fetid pus, if the bones, cartilages, and tendons are changed, if the bones are separated, if there is great pain, loss of sleep, night sweats, hectic fever and diarrhea, conducting the patient to the brink of the tomb, amputation is formally indicated.”—*Dict de Med.* Vol. II. Art. Amputation.

There are many, indeed the greater number of surgeons, who do not wait for all these symptoms, and yet it is probable that of those affected with them, as great a number recover without amputation as with it.

The following cases will show the foundation of such an opinion.

CASE I.—*Inflammation of the knee, of three months standing,*

*caries of the bones and suppuration; recovery without amputation.*—Feb. 21, 1838, I was called to visit J. B., a boy of 12 years of age, of scrofulous habit, affected with inflammation of the right knee. The history of the case, as far as ascertained, was as follows: About three months previously he had a fall, and injured the joint slightly. This was soon followed by slight pain, gradual enlargement and heat, which, increasing, gave rise to constitutional irritation. He was treated with antiphlogistic remedies, but the disease of the joint progressed until the period when I saw him, when it presented the following appearances. The entire limb was much swollen from the toes to the hip, and about the knee there was redness and exquisite tenderness. Several points presented distinct fluctuation, which extended to the popliteal space, downward upon the sides of the leg, and upward to near the hip.

There was great emaciation, dry tongue, frequent pulse, chills and profuse night sweats, with diarrhea.

Free openings were made about the joint, which gave exit to an immense quantity of thin, whey-like pus, and on passing a probe, the articular surfaces of the tibia and femur were found rough and carious. The patient was put upon the use of acids, bitter tonics, and anodynes to allay pain, but for two weeks no improvement took place. Amputation was then proposed, but the terror it excited in the patient, and the great aversion of the parents, prevented its acceptance. He was accordingly continued upon a tonic course, and as the serous discharge from the joint and the adjoining purulent foci, was abundant and offensive, these were freely injected with a solution of sul. copper, gr. jv to the oz. of water. For two weeks longer, scarcely any change could be perceived, but at the end of this time a diminution and improvement in the quality of the discharge was noticed. Soon after, the great tenderness having been diminished, a many tailed bandage was applied from the ankle to the hip, so as to remove the edema, and compress the purulent cavities.

As soon as the stomach could retain it, rich beef soup was given. Under this course of treatment there was a gradual improvement, and at the end of June—more than four months from the commencement of the treatment—he was able to walk on crutches,—the knee being ankylosed in the straight



position. With the exception of this ankylosis, entire recovery took place, and the young man is at the present time (1846) able to follow a laborious occupation.

CASE II.—*Scrofulous disease of the ankle of six years standing, suppuration and caries; recovery without amputation.*—Hogan, aged about thirty years. This was a case of scrofulous disease of the ankle, of six years standing, which came under treatment in the dispensary of the Medical College at Chicago, in the winters of 1843, '44, and '44, '45. Suppuration had continued for a long time, but at length ceased. The limb was emaciated, the joint enlarged,—stiff and cold, and the member quite useless. The general health was much impaired, but there were no symptoms indicating danger to his life. He had been an inmate of many hospitals, and amputation had been advised, which he declined from timidity. He was put upon a good diet, with hyd. potass, gr. x, twice daily. This was continued at intervals, for several months. A firm immovable apparatus of starched cotton rollers, was applied so as to effect the following objects, viz: preserve perfect immobility of the ankle, gently compress it and preserve its temperature. This treatment was persevered in eighteen months, at the end of which time, only a stiffness and rigidity—the effect of the disease—remained, and in March, 1846, he was in good health, using the limb freely, and pursuing an active employment.

CASE III.—*Chronic Scrofulous disease of the knee, of long standing, suppuration; recovery without amputation.*—July 6, 1843, prescribed for F. M., a girl of 12 years of age, affected for many years with an enlargement of the inferior extremity of the right femur, attended with flexion of the leg to an angle of  $45^{\circ}$  with the axis of that bone. There was pain, slight and occasional, heat moderate, synovial effusion into the joint considerable, with impaired digestion, and an irritable debilitated state of the constitution. She was put upon a course of tonics with good diet, free exercise in the open air, while the knee was preserved in a state of perfect immobility, and protected from changes of temperature.

For upwards of a year the state of the disease, and the general health improved, so that she commenced to use the limb. This was followed by a return of the heat, pain, and swelling, in a greater degree than before, and notwithstanding

that these were combatted by repose and antiphlogistic treatment, extensive suppuration took place, and a free opening was made with the caustic potash, upon the outside of the joint, Feb. 1, 1845.

Free suppuration, with all its local and constitutional effects, was established, and the same treatment adopted as in the first case, and at the end of five months from the time of making the opening, it was entirely healed, the general health good, and only a false ankylosis, in a partially flexed position remaining. By the use of gently extending means, this is so much removed, that she walks without difficulty, her general health is excellent, and but a few weeks more will be required to entirely straighten the joint.

CASE IV.—*Caries of the Ankle. Long continued suppuration with hectic fever. Amputation and recovery. Return of the disease in the form of tubercular consumption. Death.*—This case being one in which we were only called occasionally to consult, we were only acquainted with the most prominent facts and not with the details.

It was first seen July 13, 1841, and presented at that time the usual appearances of that articulation when affected with long continued caries and suppuration.

There was also hectic fever with its usual attendants, emaciation, diarrhea, &c. Amputation was performed by the attending surgeon, on the 18th of August following; the stump healed well, and the patient soon recovered his usual *embon-point* and health. Symptoms of phthisis, however, soon developed themselves, and when last visited by us in February, 1843, he was in the last stage of that disease, and died soon after.

Cases like the last are unfortunately extremely common; so much so, that we doubt whether there is any surgeon in considerable practice, whose experience would not furnish several cases of the same kind. Instead of reporting them as we could from our own practice, we prefer to select some from the experience of others. The following are from Brodie on the diseases of the Joints, page 214. "A girl was admitted into St. George's hospital, who labored under this disease in the bones and joints of the tarsus. The foot was amputated by Mr. Griffiths. In about three weeks the stump was perfectly healed; but now she was seized with



symptoms which indicated an affection of the mesenteric glands, which had not shown itself previously, and she died. On dissection, numerous glands of the mesentery were found enlarged, and containing cheesy matter. Another girl whose arm I amputated on account of a scrofulous disease of the elbow, became affected in the same manner immediately after the stump was healed. She also died, and similar appearances presented themselves on dissection. A man whose leg was amputated on account of a scrofulous disease of the tursus, in a short time after the operation, began to experience symptoms, which indicated the incipient state of some pulmonic complaint, and soon afterwards, the other foot was affected in the same manner as the first. These are a few of many cases which might be adduced as lending to the conclusion—that the occurrence of this scrofulous disease in a particular joint, may be the means of preventing the scrofulous disposition from showing itself in some other organ; and that if the affected joint be removed by an operation, there is more danger of the disease breaking out elsewhere, than there would have been if the operation had not been resorted to.

Druitt, in his *Surgery*, (p. 267) expresses the same opinion and even carries it further. “It seems probable that disease of the lungs or mesentery, is sometimes suspended or *averted* by the continuance of a (not very severe) disease of the extremity.”

Numerous opinions of the same kind might be added, but we have lately met with the following passage in the work of R. W. Tamplin on deformities, which so well accords with our own experience, that we give it entire in place of multiplying authorities on the subject.

“A case occurred to me three or four years since, of which the following was the condition of the patient:—The girl, about 8 years of age, was sitting on the bed in the most miserably emaciated condition, and was stated to have been suffering from disease in the knee between two and three years. There were five openings, two on the outside, just above the condyles, one on the inside, and two on the patella. The three first communicated with the femur, the two last with the patella. The parents stated that at least half a pint of matter was discharged daily. Of course, this was somewhat exaggerated, but an immense discharge was then evident, of that peculiar, thin, unhealthy secretion, common in scrofulous diseases. The knee was contracted beyond a right angle, so

that you could not pass a thin piece of sponge between the leg and thigh, in the situation of the popliteal space. The knee itself was swollen, and distended with fluid. She was suffering from acute hectic fever, with profuse perspiration and severe pain on the slightest motion. The pulse was fluttering, the bowels relaxed; in fact, the child presented the appearance of a person in the last stage of consumption. I ordered her an opiate, with the hyd. c. creta, every night, the conf. aromat. and ext. cinch. three or four times a day, a soft linseed-meal poultice, made by stirring the meal into boiling water, over the whole of the knee joint, covered with oiled silk. A tin splint, bent at the angle at which the knee was flexed, with pads, and retained by means of a flannel bandage, from the toes upwards above the knee, thereby keeping up the natural temperature of the entire limb, as well as a uniform gentle support; together with a nourishing diet, consisting of eggs, milk, meat, beer, and then two glasses of port wine daily, commencing the stimulants by degrees. In a few days the general irritability subsided, and the pain in the knee was relieved, the hectic left her, and the discharge altered its character. In fourteen days she could be moved without a complaint.

“This treatment was continued six months, varying the tonic at the end of which time all the openings were closed, and the swelling of the joint almost gone. The leg was extended in the most insensible manner, by gradually straightening the splint during the period the disease was subsiding, and without pain being produced. As soon as the openings were healed, I supported the joint with emp. cerat. saponis, and continued the bandage and splint, and in twelve months the leg was brought into the straight position, and the girl could use it without any assistance. I then directed the joint to be exercised daily, by forcibly flexing and extending it, as far as the feelings of the child would admit, and in this way the motion of the joint was restored, the muscles of the thigh and calf developed themselves, and a perfectly useful limb is the result. In this case amputation was advised by several surgeons as the only means of saving the child’s life.

“I would beg to mention another case, similar in some respects, of a boy 9 years of age, in whom what is called white-swelling had existed for eighteen months. There were no openings, but a bag of matter situated in the upper and outer side of the femur just above the condyles. The joint also distended with fluid, and contracted beyond a right angle. The same treatment was followed here; the matter gradually and entirely disappeared, the swelling of the joint reduced, and by means of the splint the leg was brought, in eight months, into the straight position, and the boy enabled to use his leg, supported with a straight splint. In this case also amputation



was recommended, and would certainly have been carried into effect, had the boy assented. I have used the poultice made in the manner described, as it acts both as a fomentation, and enables you also to apply slight support to the distended and weakened capillaries, over the whole surface. The splint keeps the joint steady, and relieves the pain, at the same time that a permanent contraction is prevented by the gradual and steady extension kept up, and the flannel bandage maintains the temperature and gives a uniform support; for it is certain that no restorative process can go on if the natural temperature is reduced, which you will frequently find to be the case in these subjects. The opium greatly allays the general irritation from which they suffer so severely in consequence of continued pain, and is, according to my experience, of the greatest possible advantage.

“I have ventured on this digression, because I believe that many legs are lost simply from want of attention to what are often considered trifling details, but which trifling details form, in my opinion, the most important portion of the treatment. By their use I believe that the majority of cases may be saved from the dreadful alternative of the loss of the limb, which, to the poor, whose living must depend on their daily labor, is of infinite importance, far more so than to those whose means place them beyond the necessity for exertion. It has been said that such cases are daily occurring, and occurring in every one’s practice. Admitted: but does not this prove that the opinions expressed are incorrect, and if these and others have had the use of their limbs restored, there are, in all probability, hundreds who have suffered amputation that might have possessed a useful member? It is an easy matter to take off a leg, but the consequences to the patient exist for life. How often is it said, in similar cases, ‘we must first get the patient into better health, and then perform amputation.’ Now I want to know how a patient suffering from this disease in its most severe form can, during the existence of that disease, and in spite of it, be brought into better health, into such a state of health as will admit of his bearing the operation, and yet the health should not continue to improve, and with proper attention the disease should not be cured also. It is certain, if the severe symptoms I have mentioned be allowed to continue, death must be the result; but until you can prove to me that the disease is, from its nature, incurable, (I mean, of course, in young subjects) I am not prepared to admit either the necessity of amputation, nor that the disease will continue and destroy life, unless that extreme measure is resorted to. Again, supposing the bones themselves diseased, and the integrity of the joint destroyed, what is to prevent the restorative process from going on, and a comparatively useful limb being secured to the patient? We have evidence

in abundance of this being effected in the instances of ankylosed joints that present themselves almost daily, of the hip, knee, and elbow. The misfortune is, and what I would particularly draw attention to, that from the comparatively low organized condition of the structure of the joint, the efforts of restoration are proportionably slow, and occupy many months of treatment, and of course, of attention; but what is this compared with the life of the individual, and his being enabled to obtain his subsistence in any capacity he may be placed? whereas, with a wooden leg, no very active employment can be undertaken, for, independently of the appearances it presents, objections naturally arise to the employment of such individuals. My object in making these remarks is solely to direct attention to what appears to me a very much neglected disease, and I believe, in many instances, this arises from an impression that it is a disease, if not incurable, at least so far hopeless that it is useless to waste the health or time of the patients in any attempts at cure.

If in these remarks I shall be the means of drawing attention to the subject, and in this way of saving the limbs of patients thus afflicted, whatever may be the opinion entertained, I shall have obtained more than I have any reason in right to expect. The assertion of these views is a bold step, and I am well aware that my motives may and will be questioned, and my opinion disputed. I have, however, a duty to perform in common with all men, and I trust never to be deterred by fear from openly and decidedly stating my opinions, believing conscientiously that they are correct, and believing also that general good may result from them."

We think the above cases and quotations will sustain our assertion, that scrofulous disease of the larger articulations is one of those in which limbs may be saved, which are ordinarily condemned to amputation.

Whether or not this is the case, the facts and views will serve to exhibit in a more striking point of view than could otherwise be done, the culpability of those who resort to amputation in such cases before suppuration, or any alarming symptoms have taken place. This is occasionally done in this region, under circumstances where the opinion of an enlightened medical public cannot operate with sufficient force to prevent it.

Several cases of the kind have come within our knowledge of which it may be sufficient at present to specify a single one.

December 6, 1845, we were requested to visit W. M., a



young man of about 20 years of age, residing 23 miles south from this place, for the purpose of amputating his thigh. We visited him in company with our colleague, Prof. Herrick, and found him in the following state: the right knee was somewhat swollen, red, tender, and painful without any sign of suppuration.

Slight irritation of the general system, but no chills, sweats, or diarrhea. The disease had existed for several years, but so slightly as to allow him to follow some useful employment, and had recently become aggravated while he was undergoing a course of active medication. Of course we declined performing amputation, and advising gentle alteratives, evaporating lotions to the part, with anodynes if the pain was severe, encouraged him to hope that, by perseverance, he would preserve not only his life, but a useful limb.

Soon after we learned that amputation had been performed.

We think it but just that the utmost publicity should be given to this case, and may have occasion to add others of a similar character, in order that those who prefer the triumph of an amputation to the credit of preserving a useful member, may receive the full benefit to be derived from a practical application of their principles.

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### ARTICLE III.

*Foreign Bodies in the Organs and Tissues of the Body.* By W. B. HERRICK, M. D., Professor of Anatomy in the Rush Medical College.

Every experienced practitioner has, doubtless, met with cases with symptoms which, for the want of a correct history, or from inattention to minute circumstances connected with their origin and progress, have appeared inexplicable and perplexing.

Symptoms thus presenting themselves, without any assignable cause, are often produced by the presence of foreign substances imbedded in some important organ or tissue of the body, introduced by accident or otherwise, without the patient's knowledge; its presence not being suspected by himself or his medical attendant.

For the purpose of directing attention to this fact, and to

show the importance of inquiring more minutely into the origin and primary cause of such symptoms, we give below the history of a few cases of the kind:

CASE I.—In the fall of 1843, I was called to see a Mr. H., an industrious, middle-aged farmer, with a good constitution, who had been suffering, during the 24 hours previous to my arrival, with the most excruciating pain in and around the knee joint, extending upwards to the hip, and downwards to the foot. Limb high-colored, swollen, and very tender, pulse 100 and full.

It appeared, from the history of the case, that while laboring in the field about two months previous to this time, my patient had felt a slight pricking sensation in the integuments covering the joint. Upon examination, a slightly reddened point was discovered, but there being no other evidence of injury, and as exercise caused no inconvenience, he continued his labors up to the time of the inflammatory attack.

Under the influence of antiphlogistic treatment, both general and local, the inflammatory action gradually subsided, and in about ten days all signs of disease had disappeared from the affected part.

About six months subsequent to this attack, being called again, I found Mr. H. suffering as before, with symptoms similar in every respect to those above mentioned. The treatment, this time, though actively antiphlogistic, did not prevent the formation of an abscess in the cellular substance around the joint, which continued to discharge for two weeks, when it healed, leaving no bad effects, apparently, excepting a slightly contracted condition of the muscles of the limb.

In about a year after this second attack, this unfortunate patient was brought upon his bed for the third time, with symptoms identical with the former. An abscess formed as before, which continued to discharge for two or three months, at the end of which time, (during my absence) his medical attendant, while passing a probe into the abscess, discovered a foreign substance imbedded in its walls, which, being withdrawn, proved to be the sharp point of a thorn, a half inch or more in length. After its removal, as may be supposed, the abscess healed kindly, and all traces of disease of the leg and knee rapidly disappeared.

CASE II.—A. H., a carpenter, about 25 years of age, of



good constitution, and in robust health at the time, was suddenly attacked with cough, profuse expectoration, and difficult respiration, with slight febrile excitement. In the hands of numerous physicians of good reputation, and under the care of as many quacks, for two years after this attack, a part of which time was spent in a hospital at New Orleans, these symptoms became more and more alarming, his sufferings almost insupportable; till at the end of that time, these apparently characteristic symptoms, his emaciated condition and depressed physical powers, impressed the conviction upon himself and medical advisers, that he was about to fall a victim to consumption.

Thus deprived of hope, and desirous of seeing his friends once more, Mr. H. by dint of great exertion, and bodily suffering, arrived at length at the home of his brother in the interior of Illinois, there as he supposed, shortly to end his days.

Soon after his arrival, and during one of the violent fits of coughing, to which he was subject, a foreign substance, which proved to be a fish bone, cuboidal in shape, and a half-inch or more in diameter, was suddenly and forcibly ejected from the laryngeal opening upon the floor.

From this time forward, all the alarming symptoms began rapidly to abate, and at this time, two years since, the individual above named, is in perfect health.

After the above fortunate termination of his disease Mr. H. recollected that a month or two previous to the appearance of the above named symptoms, while dining upon fish, he inhaled as he supposed a small portion into the air passages, but as it gave him but little trouble at the time, he thought no more of it, and did not, during his illness, suspect even, the true cause of his sufferings.

CASE III.—A friend of mine, a physician, has given me the history of the case of an individual who fell, accidentally, upon the extremity of a blunt stick; which piercing the clothing and integuments, passed into the cellular substance surrounding the lower part of the rectum. The opening thus produced assumed the character of a fistula, and remained open for a long time after the accident. The operation of laying open the cavity, was at length performed, which resulted in the discovery of a piece of cloth imbedded in the tissue at the bottom of the ulcerating canal.

## ARTICLE IV.

*Case of the Bite of a Mad Dog, and its treatment.* By DANIEL STAHL, M. D., of Quincy, Illinois.

There is, perhaps, no disease in the whole register of nosology, that is more dreadful in its manifestations, and more certain in its destruction, than hydrophobia; and none, I may add, that is more obscure to the pathologist, and less under the control of medical agents, than this awful disease. Much, very much, has been written on hydrophobia, many remedies have been lauded as infallible in its cure, and many, if not all of them have disappointed us in the hour of need,—none have as yet stood the test of time, and I much doubt whether as yet we possess, out of the many hundreds of “curative plans” for this scourge of the animal organization, a single one on which we can rely with confidence. Accident, or organic chemistry, are the two sources to which I look for aid in this disease, and as long as we cannot *cure* it, we must more earnestly endeavor to *prevent* it. Can we prevent it when the hydrophobic poison is once introduced into the animal system? In answer to this question I take the liberty to relate the following case, and leave it to the reader’s own judgment to answer it, remarking merely, that it is now nearly 15 months since, the patient was bitten by a dog, which, from the following reasons, I considered rabid.

1. The appearance of the dog, as described by the patient and his father, who is a very intelligent gentleman.

2. The irresistible desire of the dog to bite every thing and every body.

3. His constant restlessness and running until he was killed; and finally and principally

4. *The manifestation of undoubted symptoms of Hydrophobia in at least 12 animals (dogs, hogs, and horned cattle,) that were bitten by this dog on the same or on the subsequent day of that on which my patient was bitten by him.*

I will not impose upon the patience of my readers a long and minutely detailed history of the case, but will merely relate the main features as put down during the time of treatment in my case book. As an apology, (if apology is necessary) for this brevity, I will merely say, that I feel some embarrassment in writing in a foreign language; which the English language is to me.



Harvey Barr, a stout, healthy lad, of 14 years of age, was bitten on the morning (about 8 o'clock) of the 10th of February, 1845, by a dog supposed to be rabid. In the afternoon he came to my office. He had five wounds inflicted by the teeth of the dog on both sides of the middle and ring fingers. Some of these wounds consisted of but an abrasion of the skin, others penetrated through the skin. I washed the wounds with spirit. cornu cervi, and gave him a dose of Epsom salts, and ordered the wounds to be cauterized with a red-hot iron. This latter not having been done, I went to the place of his residence (6 miles from the city) and performed cauterization with a red-hot knitting-needle, about 10 o'clock, P. M. I then put ungent. cantharid. on the wounds, and ordered a pill of gr.  $\frac{1}{2}$  ext. belladonna, and gr. j. of ferr. carbon., to be taken thrice a day, until the pupil should become very much enlarged, when but one pill, daily, was to be taken.

*February 26.* The hog of Hiram Barr, supposed to have been bitten by the same dog that bit Harvey, became a few days ago hydrophobic, and died under the usual symptoms of that disease. This, of course, alarmed the father of Harvey, and he requested that I might consult some other physicians. Drs. Taylor and Bartlett, two well educated and intelligent gentlemen, were accordingly called in. The belladonna had manifested its wonted constitutional symptoms, such as itching, dryness of the throat, enlarged pupil, &c. The wounds are suppurating, and the hand is swollen and painful, but the pain does not extend beyond the hand. Patient is perfectly tranquil and happy, not appearing to be troubled with any apprehension of danger; he eats and sleeps well.

It was the opinion of Drs. Taylor and Bartlett to continue the belladonna, apply ungent. mercuri. instead of the ungent. cantharid., and use Epsom salts as a cathartic; all of which was, by me, ordered to be done.

*March 2.* The wounds did not suppurate well. Having just read the account of a similar case communicated by Dr. Hildreth, of Ohio,\* in which he had used externally, hydrarg. precipitatum rubr. cum. cupr. sulph. I discontinued the ungent. mercuriale, and used Dr. Hildreth's prescription.

*March 5.* Heard of several dogs and hogs having been bitten by the same dog that bit Harvey. Dr. Bartlett and my-

\* Medical Repository, Vol. VII.

self went to Joseph Turner's, in the neighborhood of Barr's, and became satisfied that his (Turner's) two dogs were rabid.

*March 8.* The wounds have dried up. Ordered emollient poultices and ungent cantharid., also three pills daily, each containing  $\frac{1}{2}$  gr. of ext. belladonna.

This treatment, i. e.: the application of the cantharides ointment, and the internal use of belladonna, with occasionally a dose of salts, I continued for three months till the 10th of May, when I healed up the suppurating wounds, and dismissed the patient. I have had, however, in the mean time a vigilant eye upon him, but could not detect the least symptom similar to any of those we see in hydrophobia.

April 30, 1846.

P. S. I am at this time attending a boy who was bitten by a rabid dog on the 10th of March, 1846. I treat him in the same manner as I did the subject of the above narrative, with the exception of the use of the cauterium actuale. In a year or two I shall communicate this case also, whatever may be the result of my treatment.



## PART II.—REVIEWS.

## ARTICLE V.

*Remarks on the Influence of Mental Cultivation and Mental Excitement upon the Mind.* By AMARIAH BRIGHAM, M. D., Superintendant and Physician to the State Lunatic Asylum, Utica, N. Y. Third Edition. Philadelphia: Lea & Blanchard. 1845. pp. 204. (From Brautigam & Keen, Chicago.)

In evidence of the meritorious character of this little volume, and to show that its value is duly appreciated, both at home and abroad, we need only mention the fact, that it has passed through three editions in this country, in as many years, and has been republished both in Glasgow and Edinburgh, under the supervision and with the recommendation of such men as Robt. Macnish, M.D., and Jas. Simpson Esq.

“The object of this work,” says the author, “is to awaken public attention to the importance of making some modification in the method of educating children, which now prevails in this country. It is intended to show the necessity of giving more attention to the health and growth of the body, and less to the cultivation of the mind, especially in early life, than is now given; to teach that man, at every period of his existence, should be considered both as a spiritual and material being—as influenced both by physical and moral causes, and that therefore all plans for his improvement should be formed, not from a partial view of his nature; but from a knowledge of his moral, intellectual, and physical powers, and of their development.”

The subject under consideration is, evidently one demanding the attention and close investigation of every individual, but it is especially the duty of the physician, whose province is to direct and advise others upon such points, to make himself thoroughly acquainted with the facts and arguments bearing upon this subject. In our estimation, every page of the work before us would be perused by our readers with satisfaction, pleasure and profit; we shall therefore quote from it such passages as seems to us most interesting and instructive, conscious as we are, of the difficulty of making selections from pages so nearly faultless.

Our author commences by showing, in a very logical and conclusive manner, that the *brain* is the material organ by which the mental faculties are manifested. In his arguments upon this point we find the following remarks upon *insanity*, which are interesting in a medical point of view, and valuable from the fact that they are the conclusions of a physician, of correct observation and much experience with this disease.

“The phrase *derangement of mind*,” says he, “conveys an erroneous idea; for such derangement is only a symptom of disease in the head, and is not the primary affection. It is true, that, moral and mental causes may produce insanity, but they produce it by first occasioning either functional or organic disease of the brain. On examining the heads of those who die insane, some disease of the brain or its appendages is generally found. I am aware of the statement by many writers, that they have examined heads of the insane, and found no trace of organic disease. But, until late years, there has not usually been great accuracy in such examinations, and slight organic disease might have been overlooked. Even admitting that there was no organic disease in the cases described by these writers, there was undoubtedly functional disease inappreciable by the senses; just as there is often great disorder of the stomach and derangement of digestion which cannot be discovered by dissection. There are in fact no diseases which are independent of affected organs, although the affection may not always be evident to the senses.

“Although mental derangement may perhaps sometimes occur in individuals who after death exhibit no trace of organic disease, I think such cases are more rare than has generally been supposed. Dr. Haslam says, that insanity is always connected with organic alterations of the brain. Greding has noticed thickening of the skull in one hundred and sixty-seven cases out of two hundred and sixteen, besides other organic disease. Spurzheim says he *always* found changes of structure in the heads of insane people. M. Georget dissected a great number of brains, and his experience is conformable to that of the authors above-mentioned. Mr. Davidson, House Surgeon to the Lancaster County Lunatic Asylum, examined with great care the heads of two hundred patients who died in the asylum, ‘and he scarcely met with a single instance in which traces of disease in the brain or its membranes were not evident, even when lunacy was recent, and a patient died of a different disease.’

“Dr. Wright, of the Bethlem Lunatic Hospital, states that in one hundred cases of insane individuals, whose heads he examined, all exhibited signs of disease; in *ninety* cases the



signs were very distinct and palpable; in the remaining ten they were fainter, but still existed in some form or other,—such, for instance, as that of bloody points, when the brain was cut through.

“One of these writers for the prize offered some years ago, by the celebrated Esquirol, for the best dissertation on Insanity, observes, that he examined the heads of more than one hundred individuals who died from insanity, and comes to the following conclusions:—

“1st. That in the brains of those who die of insanity, changes of structure will always be found.

“2d. That these changes are the consequences of inflammation, either acute or chronic.

“3d. That there exists a correspondence between the symptoms and the organic changes; and that the names, monomania, mania, &c., ought only to be employed as representing degrees and stages of inflammation of the brain.”

Numerous arguments and facts having been presented to prove most conclusively, that the brain is the organ for the manifestation of mind; this part of the subject is concluded as follows:

“I might adduce many more cases to prove the very intimate connexion between the brain and the mind, that it is a defective brain which makes the idiot, and a diseased brain which causes delirium and insanity; and that all the various states of mind produced by alcohol or by opium, &c., arise from the disordered action which these articles produce in the brain; that the weak mind manifested by the infant, and the feeble mind by the aged, are produced by a small and undeveloped, or an enfeebled and diseased brain, and not by a change of the immaterial mind itself. But cases enough have been cited to prove these truths. And if we do admit that the brain is the organ by which the mind acts, we must acknowledge the necessity of guarding this organ most carefully, of exercising it with extreme caution, of not endangering its delicate structure at any period of life by too much labor, or preventing its full development by too little; for the regular exercise of all the organs of the brain is necessary to prepare them for the active and powerful manifestation of the mental faculties.

“The healthy condition and proper exercise of the brain, are therefore far more important than of any other organ of the body, for we might as well expect good digestion with a diseased stomach, or good music from a broken instrument, as a good mind with a disordered, enfeebled, or improperly developed brain. And yet, how little regard has been paid to these important truths, in the cultivation of the mind!

While people are exceedingly fearful of enfeebling and destroying digestion, by exciting and overtasking the stomach, they do not appear to think they may enfeeble or derange the operation of the mind by exciting the brain, by tasking it when it is tender and imperfectly developed, as it is in childhood."

Our author next calls the attention of his readers, to the condition of the brain in early life, and to the effects of this condition upon the mind's manifestations.

"During childhood it" (the brain) "is 'very soft, and even almost liquid under the finger, and its different parts cannot be clearly distinguished.' Still at this time it is supplied with more blood, in proportion to its size than at any subsequent period. It then grows most rapidly, and more rapidly than any other organ: its weight is nearly doubled at the end of the first six months; and hence the nervous system, being connected with the brain, is early developed, and becomes the predominating system, in youth. At this period of life, however, which is devoted to the increase of the body, it is necessary that the nervous system should predominate; for this system is the source of all vital movement, and presides over, and gives energy to those actions which tend to the growth of the organization.— Besides, 'Infancy,' says Bichat, 'is the age of sensation. As everything is new to the infant, everything attracts its eyes, ears, nostrils, &c. That which to us is an object of indifference, is to it a source of pleasure. It was then necessary that the nervous cerebral system should be adapted by its early development to the degree of action which it is then to have.'

"But this great and early development, though necessary for the above purposes, very much increases the liability to disease; it gives a tendency to convulsions, and to inflammation and dropsy of the brain, and to other diseases of the nervous system, which are most common and fatal in childhood.

"It is, therefore, deeply important, that the natural action of the nervous system should not be much increased, either by too much exercise of the mind, or too strong excitement of the feelings, lest at the same time the liability of children to nervous diseases be increased, and such a predominance given to this system as to make it always easily excited, and disposed to sympathize with disorder in any part of the body; thus generating a predisposition to hypochondriasis and numerous afflicting nervous affections.

\* \* \* "Dangerous forms of scrofulous disease among children, have repeatedly fallen under my observation, for which I could not account in any other way, than by



supposing that the brain had been exercised, at the expense of other parts of the system, and at a time of life when nature is endeavouring to perfect all the organs of the body. And after the disease commenced, I have witnessed, with grief, the influence of the same cause, in retarding or preventing recovery. I have seen several affecting and melancholy instances of children, five or six years of age, lingering awhile with diseases, from which, those less gifted, readily recover; and at last dying, notwithstanding the utmost efforts to restore them. During their sickness, they constantly manifested a passion for books, and mental excitement; and were admired for the maturity of their minds. The chance for the recovery of such precocious children, is in my opinion, small, when attacked by disease; and several medical men have informed me that their own observations had led them to form the same opinion; and have remarked, that in two cases of sickness, if one of the patients was a child of superior and highly cultivated mental powers, and the other one equally sick, but whose mind has not been excited by study, they should feel much less confident of the recovery of the former than of the latter. This mental precocity, results from an unnatural development of one organ of the body, at the expense of the constitution, as is thus explained by two of the most celebrated men of the medical profession. 'It is a fundamental law of the distribution of vital powers,' says Bichat, 'that when they are increased in one part, they are diminished in all the rest of the living economy; that the sum is never augmented, but that they are necessarily transported from one organ to another, and therefore to increase the powers of one organ, it is absolutely necessary they should be diminished in the others.' 'Extra development and sensibility of the brain,' says Dr. James Johnson, 'cannot take place, but at the expense of some function or structure in the animal or organic system; when, therefore, an undue share of the vital energy of an individual is directed to a particular organ or system, a proportionate subduction is made from some other organ or system; and this is a most undoubted and most important truth, which is little understood, and less attended to by the world in general.'

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"I would have the parent, therefore, understand that his child may be made to excel in almost any thing; that by increasing the power of certain organs through exercise, he can be made a prodigy of early mental or muscular activity. But I would have him at the same time, understand the conditions upon which this can be effected, and its consequences. I would have him fully aware, that in each case, unusual activity and power are produced by extraordinary development of an organ; and especially that in early life, no one organ of the body can be disproportionately

exercised, without the risk of most injurious consequences. Either the over-excited and over-tasked organ itself will be injured for life, or the development of other and essential parts of the system will be arrested forever. From what has been said hitherto, we gather the following facts, which should be made the basis of all instruction; facts, which I often wish to repeat. *The brain is the material organ by which all the mental faculties are manifested; it is exceedingly delicate, and but partially developed in childhood; over-excitement of it when in this state, is extremely hazardous."*

Upon the consequences which result from inattention to the connection between the mind and body, our author goes on to say that

"Teachers of youth, in general, appear to think, that in exciting the mind, they are exercising something totally independent of the body,—some mysterious entity, whose operations do not require any corporeal assistance. They endeavour to accelerate, to the utmost, the movements of an extremely delicate machine, while most unfortunately they are totally ignorant or regardless of its dependence on the body. They know that its action and power may both be increased for a while, by the application of a certain force; and when the action becomes deranged, and the power destroyed, they know not what is the difficulty, nor how it can be remedied. Fortunately they do not attempt to remedy it themselves, but call in the physician, who, if he affords any relief at all, does it by operating on a material organ. If medical men entertained the same views as teachers, they would, in attempting to restore a deranged mind, entirely overlook the agency of the body, and instead of using means calculated to effect a change of action in the brain, would rely solely upon arguments and appeals to the understanding. For if the mind may be cultivated independent of the body, why may not its disorders be removed without reference to the body?

\* \* \* "The method of teaching little children varies in different schools; but that is everywhere considered the *best*, which forces the infant mind the *fastest*. In some schools the *memory* is chiefly cultivated, and children are taught innumerable facts. Here we see those who are scarcely able to talk, exhibited as wonderful children. They are declared to be deserving of the highest praise, and prophesied about as giving promise of great distinction in future, because they are able to tell us who was the oldest man, and many other equally useful and important facts. They are also able to tell us many truths in Astronomy, Geometry, Chemistry, &c. &c., of which the innocent beings know about



as much as do parrots of the jargon they deliver. In other schools, teachers are opposed to such practice; and say that a child should learn nothing but what he understands; that the memory should not alone be cultivated; therefore, they teach children that Methuselah was not only the oldest man, and nine hundred and sixty-nine years of age, but that he was the son of Enoch, and the grandfather of Noah, and that a year means 365 days, and a day 24 hours; and all this they teach, in order, as they say, that a child may *fully understand* what he learns. Other teachers say, that it is very wrong to *compel* a child to learn—very wrong indeed; and that he should learn no more than he will cheerfully: but though they do not gain their purpose by exciting *fear*, they awaken other passions of the strongest kind in the child, by a system of *rewards* and of *praise*. Now of all these methods, if there is any preference, it should be given to the first; for that is the least objectionable which has the least tendency to develop the mind, and awaken the passions prematurely. They must all, however, be wrong, if they call into action an organ which is but partially formed; for they do not conform to the requirements of the laws of nature, and wait for organs to be developed, before they are tasked.

“I beseech parents, therefore, to pause before they attempt to make prodigies of their own children. Though they may not destroy them by the measures they adopt to effect this purpose, yet they will surely enfeeble their bodies, and greatly dispose them to nervous affections. Early mental excitement will serve only to bring forth beautiful, but premature flowers, which are destined soon to wither away, without producing fruit.

“Let parents not lament, because their children do not exhibit uncommon powers of mind in early life, or because, compared with some other children, they are deficient in knowledge derived from books. Let them rather rejoice if their children reach the age of six or seven, with well-formed bodies, good health, and no vicious tendencies, though they be at the same time ignorant of every letter of the alphabet. If they are in this condition, it is not to be inferred that their minds are inferior to those of children who have been constantly instructed. It is a great mistake to suppose that children acquire no knowledge while engaged in voluntary play and amusements.

“They thus do acquire knowledge as important as is ever acquired at school, and acquire it with equal rapidity. Many think that the child who has spent the day in constructing his little dam, and his mill, in the brook, or the stream that runs in the gutter; or in rearing his house of clods or of snow, or in making himself a sled or cart, has been but idle, and deserves censure for a waste of his time, and a failure to learn

anything. But this is a great error of judgment; for, while he has thus followed the dictates of nature, both his mind and body have been active, and thereby improved. To him anything which he sees and hears and feels is new, and nature teaches him to examine the causes of his various sensations, and of the phenomena which he witnesses. For him, the Book of Nature is the *best book*, and if he is permitted to go forth among the wonders of creation, he will gather instruction by the eye, the ear, and by all his senses.

“He is for a while just as ignorant that stones are hard, that snow will melt, that ice is cold, that a fall from the tree will hurt him, and a thousand other common facts, as he is of a ‘parallelogram,’ or ‘perimeter,’ or ‘the diameter of the sun,’ or the ‘pericarpium of flowers,’ or of many other things, which some think important for infants to know. If his time is constantly occupied in learning the last, he will grow up ignorant of many common truths, and fail in the best of all learning, *common sense*.

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“The remarks which I have made relative to the danger of too early exerting and developing the minds of children, are not made without some knowledge of the education of children in various parts of our country.

“That children *do* have their mental powers prematurely tasked, is a fact which I know, from personal observation. I have seen a course like the following pursued in many families in various parts of the country, and I know that this course is approved of by many excellent persons. Children of both sexes are required, or induced, to commit to memory many verses, texts of scripture, stories, &c., before they are three years of age. They commence attending school, for six hours each day, before the age of four, and often before the age of three; where they are instructed during three years in reading, geography, astronomy, history, arithmetic, geometry, chemistry, botany, natural history, &c. &c. They also commit to memory, while at school, many hymns, portions of the scriptures, catechisms, &c. During the same period, they attend every Sunday a Sabbath school, and there recite long lessons: some are required to attend upon divine service at the church twice each Sunday, and to give some account of the sermon. In addition to these labors, many children have numerous books, journals, or magazines to read, which are designed for youth. I have known some required to give strict attention to the chapter read in the family in the morning, and to give an account of it; and have been astonished and *alarmed* at the wonderful power of memory exhibited on such occasions by children when but five or six years of age. I have known other children, in addition to most of the above performances, induced to learn additional hymns, chapters of



Scripture, or to read certain books, by the promise of presents from their parents or friends.

“The foregoing account fails to describe the amount of mental labor required of many children in intelligent and respectable families.

“The injurious and sometimes fatal effects of such treatment have been already mentioned. But I cannot forbear again to state that I have myself seen many children who were supposed to possess almost miraculous mental powers, experiencing these effects and sinking under them. Some of them died early, when but six or eight years of age, but manifested, to the last, a maturity of understanding which only increased the agony of a separation. Their minds, like some of the fairest flowers, were ‘no sooner blown than blasted.’ Others have grown up to manhood, but with feeble bodies and a disordered nervous system which subjected them to hypochondriasis, dyspepsia, and all the Protean forms of nervous disease. Their minds, in some cases, remained active, but their earthly tenements were frail indeed. Others of the class of early prodigies, and I believe the most numerous portion, exhibit in manhood but small mental powers, and are the mere passive instruments of those who in early life were accounted far their inferiors. Of this fact I am assured, not only by the authority of books, and my own observation, but by the testimony of several celebrated teachers of youth.”

With regard to the effect of inordinate mental cultivation and excitement in producing disease, our author remarks as follows :

“Intellectual cultivation, and powerful mental excitement, have a very important bearing upon one of the most appalling and deplorable diseases which afflicts humanity; a disease which now prevails to a great extent in this country, and is, I apprehend, increasing with fearful rapidity. The disease I allude to is *insanity*, or disorder of the organ of the mind, which produces a derangement in the manifestation of the mental faculties.

“We have no means of determining, correctly, the number of insane persons in the United States; but if there are as many in the other states of the Union as in Connecticut, the whole number cannot be less than *fifty thousand*, or *one in every two hundred and sixty-two* of the population.

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“In Scotland, the proportion of insane to the population, is 1 to 574; and in the Agricultural districts of England, 1 to 820. There is, however, more insanity in England than in any other country of Europe.

"An inquiry, therefore, into the *causes* of so much insanity in this country becomes very important; and these causes must be sought among the agents that act upon the brain. I have already shown that insanity is a disease of the brain, and that whatever powerfully excites this organ, may so derange its action as to produce derangement of the mind. Sometimes it is occasioned by a *blow* or *fall* upon the head, at other times by inflammation or fever, which produces an unusual determination of blood to the brain. But far oftner the disease is occasioned by *moral causes*, by too violent excitement of the mind, producing morbid action in some parts of the brain.

"Thus we find that insanity prevails most in those countries where people enjoy civil and religious freedom, where every person has liberty to engage in the strife for the highest honors and stations in society, and where the road to wealth and distinction of every kind is equally open to all. There is but little insanity in those countries where the government is despotic. The inhabitants of such countries possess but little mental activity compared with those who live in a republic, or under a representative government.

\* \* \* \* \* "In all ages and countries insanity has prevailed most in times of great moral and mental commotion. The crusades, and the spirit of chivalry that followed them, the reformation of Luther, the civil and religious discords of Europe, the French Revolution, the American Revolution, greatly multiplied cases of insanity. So true it is, that moral and mental causes excite this disease, that Esquirol says, he 'could give the history of the Revolution, from the taking of the Bastille until the last appearance of Bonaparte, by that of some lunatics, whose insanity relates to the events which have distinguished this long period.'

"Not only do the commotions which powerfully affect the minds of people occasion immediate insanity in adults, but they *predispose the next generation to this terrible disease*; and this is a fact that deserves great consideration. Esquirol says that many women, strongly affected by the events of the Revolution, bore children, whom the *slightest cause rendered insane*. He is supported by others in this opinion, *that strong mental emotion of the mother predisposes the offspring to insanity*.

\* \* \* \* \* "In view of these few brief facts respecting *Insanity*, we are forced to believe, that among the causes of the great prevalence of this disease in this country, are the following:—

"1st. Too constant and too powerful excitement of the mind, which the strife for wealth, office, political distinction, and party success produces in this free country.

"2d. The predominance given to the nervous system, by too early cultivating the mind and exciting the feelings of children.



"3d. Neglect of Physical education, or the equal and proper development of all the organs of the body.

"4th. The general and powerful excitement of the female mind. Little attention is given in the education of females, to the physiological differences of the sexes. Teachers seldom reflect, that in them the nervous system naturally predominates; that they are endowed with quicker sensibility, and far more active imagination, than men; that their emotions are more intense, and their senses alive to more delicate impressions; and they therefore require great attention, lest their exquisite sensibility, which, when properly and naturally developed, constitutes the greatest excellence of women, should either become *excessive* by too strong excitement, or suppressed by misdirected education. If here was the proper place, it would be easy to show that efforts to make females excel in certain qualities of mind which in men is considered most desirable,—to make them as capable as men, of long continued attention to abstract truths, would be to act contrary to the dictates of nature, as manifested in their organization, and would tend to suppress all those finer sensibilities, which render them, in everything that relates to sentiment and affection, far superior to men.

"But in general the mental peculiarities of the female mind are not regarded in education. Their intellectual powers are developed to the greatest degree, and thus their natural sensibility is changed or rendered excessive. This excessive sensibility is not always counteracted by bodily labor or exercise; or there is probably no country where women belonging to the wealthy class, exercise so little, especially in the open air, as in this. But they here participate more, perhaps, than in any other country, in the excitement of parties and sects, which, in beings whose nervous system is easily excited, is very likely to produce strong emotions; and, as I have shown, such emotions may have deplorable effects upon their offspring.

\* \* \* "There is another, and I fear a more frequent and fatal disease than that of insanity, caused by mental excitement; and which, judging from my own observation, and the records of cases in modern medical journals, appears to be increasing with frightful rapidity. I allude to organic diseases of the heart. The heart is a vital organ, and its sound state is essential to the possession of good health. When we reflect, therefore, upon the powerful influence which the feelings have upon this organ, the change from its natural action, caused by anger, fear, love, joy, avarice, ambition, envy, revenge, and all those passions and feelings that agitate civilized society, we shall not wonder that the diseases of the heart have increased in modern times. This disease has also increased in all countries during times

of great political and moral commotion. Corvisart says, 'it was more frequent in the horrible times of the French Revolution than in the usual calm of social life.'

"Testa, in a late work on diseases of the heart, states the same fact as regards agitated Italy. This author considers the powerful and irregular operation of the passions, as the most frequent cause of organic disease of the heart. Whoever reflects upon these facts, must feel the importance of cultivating a quiet state of the mind in order to preserve good health. This is important at all times of life, but particularly so during childhood. It should be recollected that the early development of the mental powers of children awakens the passions and appetites earlier than they would be but for this premature mental cultivation, and therefore excites the heart while it is in a tender and delicate state."

Want of space compels us to pass over that portion of the work in which the author treats of excessive mental cultivation and cerebral irritation, as a cause of dyspepsia. His views upon this disease are peculiar, and his facts and arguments in support of them strong, if not conclusive.

We shall, therefore, as it is probable, in a succeeding number of the Journal, publish, in full, his remarks upon this subject. W. B. H.

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#### ARTICLE VI.

*Lectures on the Nature and Treatment of Deformities*, delivered at the Royal Orthopædic Hospital, Bloomsbury Square, (London.) By R. W. TAMPLIN, F. R. C. S. E., Surgeon to the Hospital. With numerous illustrations. Philadelphia: Ed. Barrington and George D. Haswell. 1846. pp. 216. 8 vo. (From the Publishers.)

While systematic works of Surgery abound, and most important surgical subjects have been well and fully treated in monographs, a treatise on the subject of deformities has been a desideratum in English Medical literature. This is doubtless owing to the fact, that until quite recently, these affections have not been considered as coming within the pale of surgery—they have even been ranked with mal-formations, and the subjects of them have been subjected to an absurd popular prejudice, which excluded them from many of the privi-



eges and enjoyments of their fellow men; in the same manner as by the mosaic law, they were excluded from the dignity of the priesthood. Orthopædic Surgery is not only one of the newest, but also one of the brightest triumphs of science, and may teach us not to despair of the discovery of means of cure for those diseases at present deemed most hopeless.

The Orthopædic Institution in Bloomsbury Square, owes its origin, as is stated, "to the benevolent exertions of Mr. Quarles Harris, who, having experienced relief in his own family, devoted himself to the formation and support of this Charity, for the benevolent purpose of extending the same benefits to the poor, which he knew the rich could command."

It is our purpose to give an analysis of a part of the work of Mr. Tamplin, which is entirely practical in its character, without criticising his opinions. We would, however, say in the commencement, that the style of the book is, in many parts, loose and incorrect, that the author's views of the pathology of the diseases producing deformities, seem far from profound. But on the other hand it may be said with equal truth, that the work is very modest in its pretensions, that its practical views are generally correct, and always on the side of moderation and safety, and that all those extreme and violent measures and operations that have discredited this branch of surgery in the public mind, are here discountenanced.

The following extracts will show our author's views on the subject of the division of tendons, their re-union, and the period at which extension should be made. On this latter point our experience has shown us that in a great number of cases, extension may be applied with perfect safety immediately after the division of the tendon, but it is by no means certain that this is universally true, and when much or long-continued force is required, this should not be practised.

"The principles laid down by Delpech, in his *Orthomorphie*, published at Paris in 1828, are comprised in the following rules:—

"1st. 'A tendon to be divided must not be exposed; and its division should be made by turning the instrument on one side, so that the line of the incision may not be parallel to the division of the skin; without this precaution risk of exfoliation of the tendon is incurred.'

"2d. 'Immediately after division of the tendon, the divided

ends should be brought into contact with each other, and kept in this position by a suitable apparatus during the entire period necessary for their union.'

"3d. 'Inasmuch as it can only take place by the intervention of an intermediate fibrous substance, this substance, before it has become firm, can, and should be, extended gradually and carefully, until it has assumed a degree of length equal to the shortened muscle.'

"4th. 'When this degree of extension has been effected, the parts should always be fixed in the position, and kept so until the new substance has acquired its requisite degree of consolidation.'

"These, gentlemen, are the principles upon which we are now acting, and from which we depart but in the slightest degree; they embody the entire doctrine of the treatment of deformity, and have only to be followed out carefully to insure success. There can be no question that had Delpech been spared to enjoy the common number of years allotted to man, he would have extended to every variety of deformity, the new views which he so graphically announced. It was not only in deformity in the feet, and the physiology of the division of tendons, that Delpech shone so conspicuously, but also on lateral curvature of the spine, and on dislocations of all kinds, on which subjects his works must be considered as second to none in originality and in correctness of principle. It is gratifying to find, that Stromeyer, who has been fortunate enough to extend the treatment of the distinguished surgeon of Montpellier, has generously acknowledged the merits of Delpech; for he says, 'Although the division of tendons has been recommended long since as a mode of removing certain contractions, yet the credit of having set this operation on a proper scientific basis undoubtedly belongs to Delpech, inasmuch as he showed the peculiar advantages derived from a new fibrous substance between the divided ends of the tendon, thus giving to this method of operating, its true practical value, and enabling us to avoid rendering inactive the muscles whose tendons have been divided:' an acknowledgment on the part of Stromeyer which does equal credit to his head and heart. In his work 'On Operative Orthopædic Surgery,' Stromeyer observes—'Delpech laid it down as a rule, that the surgeon should encourage the formation of sufficient substance between the two divided ends of the tendon to maintain the function of the muscle, and should not destroy the new union by immediate extension, but commence extension some days after the operation: this rule is most important for the safe performance of orthopædic operations, and its value should be duly estimated. The idea that the elongation of the muscle is effected through the cicatrix, is a false one; the extent of the substance or cicatrix, is quite inadequate for this purpose. In some



cases of pes equinus the gastrocnemii are two or three inches too short; and, in wry neck, the sterno-mastoid is equally short, yet the cicatrix, after the cure, is but a few lines long. The elongation of the muscle must be effected in these cases at the cost of its contractility, and thus the incision of its tendon acts not only on its mechanical, but also on its vital properties, and, by the temporary diminution of its irritability, its contractile power is diminished, and any increase of it prevented. This view is confirmed by observations made in cases where the tendons of sound muscles have been lacerated. The following is an instance:—A medical man, of lax fibre, ruptured his tendo-Achilles seven years ago, and, in spite of the injury, walked about a few days afterwards; at the present time he walks about, dragging his leg after him, like a paralytic man, although the cicatrix is only a few lines long, and would be only considered as likely to produce any lameness in those motions which require forcible contraction of the calf. The injury and subsequent want of use have evidently here caused a loss of power in the calf, which, in his feeble condition, could not readily be restored. It is a remarkable circumstance, that when the tendo-Achilles unites in an imperfect manner after injury, the foot is not drawn up by the flexor muscles, but hangs like a loosely connected part, showing that the diminished irritability of such a mass as the calf of the leg exerts a weakening influence on the entire extremity. That any person should commence extension immediately after the operation, and attempt to restore the limb to its natural position, using, like Sartorius, a degree of violence that makes us shudder to think of, is neither necessary nor advisable.’

“The immediate restoration of a limb in its natural position is not to be recommended, for by extension before the healing of the wound in the skin, the parts are liable to inflame or suppurate; by gradual extension, the contractility of the muscle, the tendons of which have been divided, is interrupted for a time, and restored by the stretching and motion of the parts when the foot is again used. ‘In all my cases,’ adds Stromeyer, ‘of division of the tendo-Achilles, the use of the muscles of the calf has been completely restored. Dr. Weiss informs me that at Paris the use of the muscles of the calf is not always restored. This may probably depend on the immediate separation of the ends of the tendon, which does not prevent its healing, but hinders the restoration of the function of the part; it is also possible that, by the extension of the intervening substance, which, from immediate extension, is very thin, the cicatrix itself may be lacerated.’

\* \* \* \* \* “I have had two opportunities of examining the condition of tendon that had been operated upon during life, after death; the one was a boy

about seven or eight years of age, in whom the tendo-Achilles was divided for complete talipes equinus, the heel being elevated to its full extent: he was of weak, delicate, and unhealthy constitution, and the foot was brought into position three or four weeks after the operation; the uniting medium was at that time nearly two inches in length, soft, yielding, and exceedingly weak. It gradually, however, strengthened, contracted upon itself, and became as strong, to all appearance, as the original tendon; nor could any irregularity or thickening be detected. Twelve months after the operation he was attacked with scarlet fever, of which he died. His father informed me of it, and offered to allow an examination. On examining it externally, no trace of its having been divided could be detected; it possessed the same prominent uninterrupted outline as its fellow; the point of puncture could with difficulty be detected. On removing the skin and cellular tissue, there was no evidence of a wound having been inflicted, no adhesions, thickening, or swelling, and on laying open the sheath the tendon presented one uniform and natural appearance; so much so, that one was almost led to doubt the possibility of its having been divided. I then made a longitudinal section, but could discover no alteration with the naked eye, except a sort of globular appearance in one spot, but not sufficiently differing from the tendon itself to make us positive. The other was a congenital case of talipes varus, in a child of eight months of age when operated upon, and who died from hooping-cough and head affection eight months after the operation. The tendo-Achilles, the anterior and posterior tibial tendons, had been divided. The same perfection existed here, and at the examination, no trace of any kind could be detected, in appearance or by sense of touch.

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“Von Ammon (*De Physiologia Tenotomiæ*) gives the following account of the union of tendons:—‘When a tendon is divided a slight degree of pain occurs, but no spasm of the part. In a short time a gap is produced by the contraction of the divided tendon, the principal part of the contraction taking place in the part of the tendon above the division.’ This gap is soon filled up with blood, which he says, chiefly flows from the upper end of the divided tendon. This blood soon coagulates, and in this process unites firmly with the surrounding parts, and more especially with the wounded surfaces of the tendon, the ends of the tendon presenting at this time an appearance as if they had been tied round with a thread. The next change consists in the effusion of coagulable lymph beneath the effused blood, from the surrounding tendon and adjacent parts; this lymph becoming soon marked with conical and thread-like streaks of a white colour, which extend from the two divided ends of the tendon, and seem to shade gradually into each



other. This soft substance thus thrown out, instead of remaining as a pulpy semi-transparent mass, soon becomes connected into a structure which resembles, to a certain degree, the structure of tendon. This substance is not, however, true tendon in structure, although it exercises the same functions: on the surface and in smoothness it resembles tendon; but it differs from it in presenting, in its early stage, a substance of an udder colour, and of a more compact form, and afterwards presenting a more blue colour than real tendon. The motions of this new substance are more confined than real tendon, partly on account of its want of elasticity, and also from its adhesion to the surrounding parts. This new substance is formed in about fourteen days."

Our author commences with deformities of the feet, "the treatment of these being the groundwork of the treatment of deformities in general," and then proceeds to those of the knee, hip, spine, neck and upper extremities.

Talipes (club foot) is of four kinds.

1. Talipes equinus in which there is simple elevation of the heel unaccompanied by lateral deformity.

2. Talipes varus in which the heel is elevated, the foot shortened, inverted, semi-rotated and abducted.

3. Talipes valgus or flat-foot, the reverse of the last in which there is no trace of the arch left.

4. Talipes calcaneus the reverse of the first variety, in which the posterior extremity of the os calcis rests upon the ground in walking.

There are in addition to these, cases in which two of the above varieties are combined, as T. equino-varus and T. equino-valgus.

Most of these may be congenital, or be produced after birth. The congenital varieties our author attributes, but probably without sufficient evidence, to the position of the child in the womb.

The non-congenital is produced by a great variety of causes, as paralysis, spasm, inflammation, and a peculiar condition of the nervous centres, inducing gradual contraction, &c.

In whatever manner produced, the following is the condition of the parts in all the different kinds of club foot. The form of the bones is natural. The ligaments are changed, some being lengthened, others shortened. Of the muscles some are contracted, others lengthened, and as a consequence

of want of action, both are atrophied. From the same cause there is also diminished circulation, and loss of temperature of the limb. In a recent case which we have seen dissected, there was conversion of the muscular tissue into a fatty and fibrous mass.

“The *treatment*, which we now come to consider, resolves itself into the mechanical solely, or surgical and mechanical combined. With regard to the mechanical, I think sufficient evidence is daily before us of its general failure, from the results witnessed of patients who have been subjected to stretching and rubbing, and the wearing of instruments all their lives; and the existence of this Institution is an evidence of its general utility. I have not much, therefore to say upon this head. It will undoubtedly reduce the severity of the appearance of the deformity, and may, in the slightest amount of contraction, perhaps effect a cure,—at least, we are told it does so. I can only say, I have tried both in congenital and also in non-congenital cases, when the deformity has been slight, and the contraction of the muscle very limited, but I cannot bear testimony to its success on the one hand, or the propriety of it on the other.”

Ample experience has convinced us of the justice of these observations, and also that in infants, the sooner the operation is performed the better. The muscles, whose tendons should be divided, will vary in every case. In *T. equinus* it will be simply the tendo-Achilles; in *T. varus* that tendon with the anterior and posterior tibial, and the plantar fascia; in the *T. valgus*, the tendons of the peronei muscles and those of the long extensors of the toes; in *T. calcaneus*, the tendons of the peroneus tertius, extensor longus digitorum, extensor proprius pollicis, and tibialis anticus. In general it may be stated that those tendons much contracted, should be divided, and this may be judged of by their tension.

The rules for the subcutaneous division of tendons in all parts of the body are nearly the same, viz: a small puncture should be made, about one inch from the tendon to be divided, with a lancet or sharp pointed knife,—the tendon should be divided with a narrow knife, from within outward, or from without inward, as may be most safe or convenient, care being taken to avoid the vessels and nerves. The wound is to be closed with a piece of adhesive plaster. In general, the tendon should be rendered tense at the time of division, and the



position of the patient should be that which is most convenient.

We have already given the views of our author in reference to the time proper for applying mechanical extension. This constitutes, in fact, the most important part of the treatment. Many kinds of apparatus have been devised for the purpose; of which our author prefers Stromeier's foot board or Scarpa's shoe. Whatever instrument is used, it must be applied in such a manner as to make uniform, gentle pressure only, which must be continued for a length of time, varying from two to twelve months. The foot having been restored to its normal position, a boot of some firmness to retain it there is required.

Such is an outline of the plan of treatment recommended by our author, and with some modifications almost universally adopted by surgeons. Readers who have not had experience in the treatment of club-foot, will, of course, be desirous of knowing whether it is likely, in all cases, to be crowned with success. Having had occasion to see treatment applied in several large establishments, as well as in private practice, upon cases of different degrees of severity, and in subjects of various ages, we are of opinion, that in persons of adult age, that are affected with the severer forms of this deformity, especially of the T. varus, no efforts should be made to remove it by treatment. The long continued pressure is exceedingly irksome and painful, and when at length the object is effected, the muscles have so little power, that the patient does not walk as well as before. Our author does not notice this result as occurring in his own practice, but attributes it to extension immediately after the division of the tendons; it is not, however, by any means confined to such cases. When the subject is younger, or the disease more slight, when the patient is docile, and the surgeon's care is constant, the result will be in the highest degree satisfactory.

The pathology of club-foot is that of a great number of deformities—contraction of tendons and muscles, pain, spasm, inflammation, paralysis of their antagonists, &c., are the most common. The treatment also, is upon the same principle. Division of the tendons, where required, extension till a cure is effected, and a suitable support used afterward. These are principal means. The division of the tendons is, however, more useful in the club-foot, than in almost any species of deformity.

Mr. Tamplin next proceeds to consider some cases of deformity attended with paralysis.

“With regard to the non-congenital deformities of the feet, you have, as I have had occasion frequently to observe, paralysis of one or more muscles, and a spasmodic affection of one or more of them; occasionally of the whole voluntary muscular system. When it is combined with paralysis, I have also stated that no known remedy has been discovered, if it has been of long standing, and that we can only remove the deformity, and rest satisfied with artificial support; that the limb is always in an atrophied condition, and possesses the lifeless flabby state which is so peculiar to the paralytic condition; and as we know but little of the pathology of the nerves, I shall not waste either your time or my own by speculation or theory. Suffice it to say, that paralysis exists, and occasionally of both lower extremities, with contraction of one or more muscles, producing either of the deformities before mentioned; frequently varus of one foot, valgus or equino-valgus, of the other; the patient possessing the smallest possible amount of motion in the toes. And of course, if complete paralysis exists, you have no contraction of the knees, the limb lying in any position in which it may be placed, and appearing more like a foreign body than the living extremity, and with the exception of the ligaments by which it is alone held, perfectly passive; if not complete, the knees will also be found contracted, although there may be no available motion. You will occasionally find slight motion in one or other of the extensors of the leg, but not sufficient to be of the slightest use. There is always, however, as far as my present experience goes, more or less available power in the flexors and extensors of the thigh, and from this fortunate circumstance you will be enabled, after you have removed deformity or contraction of the feet, to place the patient in a much better condition—I may say happier condition—compared to that which he has been previously obliged to endure.”

Those produced and attended by spasm are even less amenable to treatment than those resulting from paralysis.

“The spasmodic contractions are the most painful and difficult to treat, for although the deformity and contraction may be removed, yet we have hitherto been, and are at present, ignorant of any means of remedying the spasmodic condition of the muscles; and although by division of the tendons, and during the time the uniting medium is soft and yielding, you can easily hold the foot in any position, yet the cause exists, and the patient is unable to control his muscles. As soon as



the uniting medium becomes consolidated, the same irregular action is brought into operation, and support the limb by any method you may please to adopt, you cannot remove the cause or the effect. You will, however, even here, improve the condition of the limb with great care; but I would never advise recourse being had to the operation, if the foot or other articulation can be brought into position by the efforts of the hand alone; but if by such continued efforts you are enabled to restore the natural position of the foot, then divide the muscles, which, notwithstanding their spasmodic state, are contracted; and after the removal of the contraction, support the limb, and keep it as much as possible in a fixed position. I know of no cases that are more troublesome than these. It is a curious fact, that in these cases, where every muscle is affected, those of speech and deglutition as well, the intellects are perfect, although apparently weak, as the cause must exist in the brain or its membranes as well as in the spinal cord itself. The involuntary muscles are not in the slightest degree affected. The cause assigned as in most other non-congenital cases, is generally dentition or cerebral irritation, and you will frequently find talipes valgus of the one foot, varus of the other; never, however, in their more severe forms, as the opponent muscles, although possessing less power, and thereby admitting of the malposition are also in an active spasmodic state, and prevent the foot assuming the more severe malposition. This condition is said to be congenital. I have never seen a case in an infant, and although the parents assert that such is the case, I shall not be satisfied until I see it, as I think it most improbable, except in hydrocephalic congenital states; but even here I have not yet seen it. In the paralytic also you will find one foot affected with talipes varus, the other with valgus, or calcaneo-valgus; in fact, in either of the deformities I have mentioned, you will, in the spasmodic cases, which affect the whole of the muscles of the body, find contraction, either permanent or temporary, of the knees, and if not permanent, they will invariably be found in the flexed position on any attempt to exercise them on the part of the patient. The thighs will also be found adducted, and occasionally more or less contracted, in the flexed position; the pronators and flexors of the hand and arm preponderating in power, so that the patient can exercise no steady well-directed movement, nor even continue the position in which the hand or leg may happen to be placed; as for instance, in the attempt to hold anything in the hand, after having grasped the object, the hand will suddenly open with an irresistible impulse; nor has the patient any power to prevent this occurring.

“It is clear, therefore, gentlemen, that we are in total ignorance of any complete and successful remedy, for these cases;

it is therefore useless to enter more into detail, as anything that could be further advanced would be mere speculative theory. Galvanism has, in some cases of the less severe kind, been attended with partial success; but I much doubt if any positive beneficial results have eventually been obtained. You can, therefore, only place the joints in the relative position, and keep them in that position constantly, if the feelings of the patient will admit of it, but occasionally, from the violent spasmodic action of the muscles, you will find it necessary to intermit the treatment."

It is important that this opinion of so competent a judge should not be forgotten, since cases have been published as having been greatly benefitted by treatment. We have ourselves made trial of it under circumstances favorable for testing its merits, but without permanent success. A young man, 16 years of age, had been affected from infancy with spasmodic contraction of all the voluntary muscles, including those of speech. All the members were in a state of rigidity, in a position between flexion and extension, thighs adducted, total inability to raise or feed himself. The intellect apparantly good. He had early been treated by mechanical means alone without success. We divided, first, the tendons of the gracilis and adductor longus muscles, on each side, and applied extension by means of a suitable screw, and in a few days the knees were separated 18 inches, and could be retained there by the patient. Encouraged by this result, we next proceeded to divide the tendons of the biceps, flexor-cruris, semi-tendinosus, and semi-membranosus muscles, the knees were soon straightened, but in the mean time, spasmodic action returned in the adductors, and the knees were approximated as before. This proved the impossibility of success, although no doubt temporary improvement of his condition might have been effected.

*Genu Valgum*, or knock knee is the next subject of consideration.

"It consists in a relaxation and elongation of the internal lateral ligament, and the crucial ligaments must also yield more or less; for in the healthy or normal condition of the joint these ligaments admit of the smallest possible amount of lateral motion. This appears to be the primary condition; and if you will direct your attention to the position of the joint, and observe that it is at a distance from the point or points of pres-



sure in walking or standing, you will easily perceive that if the superincumbent weight of the body is thrown in any but a perfectly straight direction, with regard to the axis of the joint, if the tibia on which the femur rests is in an oblique lateral direction instead of a perfectly horizontal one, corresponding with the articular surfaces of the condyles of the femur, that this bone must press, in walking or standing, in an indirect and abnormal position, producing thus mechanically an increase of the deformity, of whatever kind it may chance to be; and when the foot is felt to incline outwardly, and the knees commence to touch each other, the malposition, as a rule, becomes daily increased in proportion to the extent at which the feet are separated from each other; the greater the distance according to a principle in mathematics, the more powerful will be the effects of pressure occasioned by the weight of the body, and the more rapid the increase of the deformity. The deformity is non-congenital—at least, I have never seen a congenital case, nor can I imagine how it could occur, provided we admit that congenital distortions arise from malposition in utero. The general cause is debility, and the specific causes the effects of detention, the various eruptive diseases to which all children are liable, also hooping-cough (in children)."

Sometimes it is combined with outward inclination of the other knee joint, and is often complicated with secondary affections, such as distortions of the feet, spine, &c. There is usually existing with it impaired digestion, tumid abdomen, flabby flesh, pallor of the skin, &c.

The treatment in the first stage consists in tonic and alterative medicines addressed to the general system, and straight board splints applied to the outside of the leg and thigh. In a more advanced stage, an angular splint with a screw may be necessary, and when tendons are contracted, our author recommends their division—this is not often necessary.

An affection, the opposite of that just described, viz: outward inclination, is sometimes found with the same state of the general system, i. e.: incipient rachitis.

"The treatment is general and mechanical: in children affected with this deformity, you will find very generally that unhealthy state of constitution I have already described, existing with those affected with the last mentioned deformity; this must, of course, be attended to by administering alteratives and tonics, with attention to the diet. The mechanical means we adopt consist of straight splints on the inner side of

the leg, extending high up above the knee, and below the internal malleolus, well padded at the points of pressure, and webbing straps applied round the leg and splint, so that a constant steady pressure may be kept up: it is only by the most gradual and uninterrupted treatment that good can be obtained, for you must recollect that not only the knees, but the bones also, are affected, and a child cannot bear any amount of continued pressure; it must be so applied that the child is subjected to no pain."

Flexion of the knee, and the various causes which produce it are next considered. There is nothing especially worthy of notice in this chapter, if we except a passage which has been quoted in another place, in reference to the cure of "white swellings." These flexions, in all cases, except in perfect ankylosis, he treats by division of the tendons of the biceps, and semi-tendinosus, and semi-membranosus muscles, and the application of an angular apparatus furnished with a screw. It is our conviction, that the division of the muscles in these cases is entirely unnecessary, and that the extension can be effected with great facility without it.

In speaking of true ankylosis of the knee joint, he pronounces a condemnation of the operation of Dr. Barton, of sawing out a wedge shaped piece from the femur, in order to straighten it. It is sufficient to say of this operation, that it is in these cases the only remedy except amputation, that it has succeeded in all cases in which it has yet been tried, and has as yet, we believe, proved fatal in none.

We have thus given an analysis of the first half of this work, enough, we think, to give our readers a knowledge of its scope and character, certainly all which our time and space will at present allow. The remaining chapters are devoted to the consideration of contraction of the thighs, rachitis, angular, posterior, and lateral curvature of the spine, wry neck, contraction of the lower jaw, of the shoulder joint, elbow, wrists, fingers and toes. In all of these much practical information may be gleaned. D. B.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE VII.

*A Lecture on the Physiology of Digestion*, introductory to a Course of Lectures on the Institutes of Medicine and Materia Medica. Delivered before the Medical Class of the City of New York, at the Session of 1844-5. By MARTYN PAINE, A. M., M. D., Prof. &c. Fourth edition. New York. J. H. Jennings. 1844-5. pp. 24.

The Introductory Lecture, of which the above is the title, though published more than a year since, has just made its appearance upon our table. We notice it, at this time, for the purpose of giving our readers an example, showing the general character of the author's productions.

The Professor begins his remarks by assuming that there are, at this time, in our profession, three distinct classes of medical philosophers, the chemists, vitalists, and chemico-physiologists. The first "of these sects," to use the writer's language, "virtually regards organic nature as a part only of inorganic, endowed with the same properties, and governed by the same laws. It maintains, in short, that there is no real difference between a man and a stone. At the head of this school stands Liebig, the distinguished and able chemist. It is a great and powerful school, but is falling, daily, beneath the weight of its own vast errors and corruptions." "Contrasted with this," continues the Professor, "is the school of vitalism; and to the interests of this school, I may now say, the main efforts of my life have been devoted." \* \*  
 "Finally, the third school, or that of chemico-physiology, endeavors to form, as it were, a bond of union between the schools of pure vitalism and pure chemistry, though such an alliance be as unnatural as human brains in a block of granite." Dr. Prout is honored with the rank of leader in this last named school. Thus it will be seen that Prof. Liebig and Dr. Prout are ranked with Prof. Paine himself, each as leader and expounder of the views of his own particular school.

The Professor then goes on to make some remarks on the physiology of digestion, in which, without facts or arguments in favor of his own views upon the subject, he makes numerous quotations from Liebig, taken in detached passages, and from the works of this author, in such connection as to make them appear, in his opinion, contradictory and absurd; and concludes by saying, "Such, then, are examples of the medley of contradictions in great fundamental principles, with which the writings of this very extraordinary and successful pretender in medicine, abound."

The writer does not stop with Liebig, but continues in suc-

ceeding remarks to speak in the most disrespectful, not to say abusive terms, of such men as Prout, Roget, Carpenter, Thompson and others, equally distinguished, and respected by the medical world for their scientific labors and acquirements.

Whether such harsh expressions towards devoted votaries to the science of medicine, even if their numerous conclusions do not always harmonize perfectly, add either honor or dignity to the name of one, who, to use his own expression, "stands up *alone* in the broad expanse of America in an open defence of the honor and dignity of the profession," we will leave for our readers to determine. W. B. H.

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ARTICLE VIII.

*Transactions of the Medical Society of the State of New York.*  
Vol. VI. Part III.

The published transactions of this Society, now before us, present as usual, a collection of most interesting and instructive matter.

The Address of Dr. Thos. Hun, on *phlebitis*, delivered before the Albany Medical Society, expresses sound views,—gives evidence that the writer is thoroughly acquainted with his subject, and is in every respect, very creditable to the author. We shall transfer a part or the whole of it—space permitting—to the pages of this number, (the first of the selections) believing that it is one which will be both acceptable and instructive to our readers, especially as it treats of a disease more common than it was formerly supposed to be, and upon which little has as yet been written.

In the next article, Dr. N. S. Davis, under the head of "Observations on an *obscure point* in pathology," gives a few interesting cases, and makes some judicious remarks upon that class of diseases in which, without any appreciable organic lesion, numerous distressing symptoms frequently occur,—such as pain and distressed feeling in the region of the heart and stomach; sensibility to the heart's action; a sense of fullness in the pit of the stomach, and a strong desire for and relief from firm outward pressure,—symptoms, in fact, generally termed *nervous*, a word like that of *bilious*, as remarks the author, "about as often used to cover up professional ignorance, and satisfy the patient's curiosity, as it is to express any well defined idea of disease."

Dr. Davis concludes with the suggestion, that all of these distressing symptoms may depend upon a morbid condition of the system of organic nerves.

Next in order, is an Address, delivered before the Monroe



County Medical Society, by E. W. Armstrong, M. D., President of the Society, in which the claims of our profession to public confidence are clearly and eloquently presented.

After this comes an analysis of the testimony on the trial of A. Cornell, for murder, in which insanity was pled in defence.

Following this interesting analysis, is the Appendix, in which is presented an abstract of the proceedings of the Society.

W. B. H.

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ARTICLE IX.

*A Treatise on the Practice of Medicine.* By JOHN EBERLE, Professor of the Theory and Practice of Medicine in Jefferson Medical College, etc. etc., with notes and additions by George McClellan, M. D., in two volumes. Sixth edition. Philadelphia: Grigg & Elliott. 1845. pp. 569, 565. (From the Publishers.)

It is only necessary to announce this new edition of Dr. Eberle's work, edited by his friend and former colleague Dr. McClellan. "In sound medical learning," says the editor, "in judicious criticism, and discriminating tact, our author scarcely had his superior." The value of the work is greatly enhanced by the notes added to this edition, and these will be highly prized by all who know how to estimate Dr. McClellan's opinions on all practical points.

We ought, perhaps, to add, as an apology for the late appearance of this notice, that the copy sent some months since, only lately came into our possession.

D. B.

## PART IV.—EDITORIALS.

## ARTICLE X.

The first No. of the new series of our Journal, which should have been sent to our Subscribers the first of April last, was unavoidably delayed in its appearance till the first of May. This, the second No., we publish when it is due, the first of June, thus allowing but one month instead of two, as will be the case hereafter, to elapse from one issue to another.

Having had but this short time, therefore, to hear from our correspondents, and for the reception of new works and exchanges, we are unable to give to our readers, at this time, an amount of original matter and recent medical intelligence, equal to what we intend shall appear in subsequent numbers.

## ARTICLE XI.

## LUNATIC ASYLUMS.

We have received the twenty-fifth annual report of the Bloomingdale Asylum for the Insane, for the year 1845. By Pliny Earle, M. D., Physician to the Asylum. Also the third annual report of the Managers of the New York State Lunatic Asylum, made to the Legislature, Jan. 23, 1846; comprising also the report of the Superintendant of the Institution, Amariah Brigham, M. D.

Both of these interesting papers contain much to cheer us with the hope that the praiseworthy efforts of those who are devoting their talents and lives to the alleviation and cure of Insanity, are fast acquiring the means of controlling this once most formidable disease, to an extent beyond the expectations of the most enthusiastic advocates of modern treatment.

As appears from the report of the Bloomingdale Asylum, the whole number in that Institution during the year 1845, was 242. Of this number, 125 were discharged during the time, 61 cured, 12 much improved, 20 improved, 20 unimproved, 12 died. In the New York State Lunatic Asylum the total number in the course of the same year, was 553. Discharged recovered 135, improved 78, unimproved 34, died 21. Total number discharged during the year 268.



In the report of Dr. Earle, we find the following important facts and conclusions:

“FIRST. *As a general rule, the first measure in the curative treatment of Insanity, is to remove the patient from home, from acquaintances, and from all familiar scenes and associations.*

“SECOND. *When the insane are placed under the proper curative treatment in the early stages of the disease, from 75 to 90 per cent recover.*

“THIRD. *On the contrary, if they be not put under treatment before the disease has continued a year or more, from 15 to 20 per cent only, are cured.*”

In the report of Dr. Brigham of the New York State Lunatic Asylum, are some very judicious remarks upon the “neglect of the study of insanity, by physicians,” which we place among our selections, with the view of directing the attention of our readers to this important subject. W. B. H.

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#### ARTICLE XII.

##### ANOTHER MEDICAL SCHOOL.

A new Medical College is now being established at Memphis, Tennessee. So far as organised, the following appointments have been made by the Trustees.

J. M. BYBEE, M. D., *Professor of Anatomy.*

D. J. M. DOYLE, M. D., *Professor of Surgery.*

A. HOPTON, M. D., *Professor of Chemistry and Pharmacy.*

G. R. GRANT, M. D., *Professor of Theory and Practice.*

The Trustees invite applications for the chairs of Institutes and Medical Jurisprudence, Materia Medica, and Obstetrics. Applications to be sent previous to the first of July next, to R. H. Patillo, Secretary of the Board. W. B. H.

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#### ARTICLE XIII.

We had expected a report of the proceedings of the National Medical Convention, from a delegate in our own vicinity, but as we have not received it in time for publication, we insert the following from the *Boston Medical and Surgical*

*Journal* of May 13; thus renewing our obligations to its efficient editor, who is never backward in communicating to the profession, early and interesting intelligence. W. B. H.

*National Medical Convention.*—The delegates to this Convention met at the Medical College of the University of New York on Tuesday of last week. At the preliminary organization, Dr. Bell, of Philadelphia, was Chairman, and Dr. Buel, of New York, Secretary. The committee appointed to examine the credentials of the delegates, reported that all accredited delegates from any regularly organized society, local and voluntary associations as well as regular colleges, institutions and societies, be considered members of the convention, which report was accepted. Sixteen States were found to be represented (by delegates from State or other societies), and a committee of one from each State was appointed to nominate officers of the Convention, who presented the following nominations, which were unanimously confirmed, viz.: for President, Dr. J. Knight, of New Haven, Conn.; for Vice Presidents, Dr. Edward Delafield, of New York City, and Dr. John Bell, of Philadelphia; for Secretaries, Dr. Arnold, of Savannah, Geo., and Dr. Stille, of Philadelphia. Dr. G. S. Bedford, representing the University of New York, then moved that whereas the original object of the Convention, that of a *National* representation, for the good of the profession, had been defeated by the non-representation of many of the States, and most of the Medical Colleges and Societies, the Convention adjourn *sine die*. This motion was seconded by Dr. Paterson, also of the New York University. The vote was taken individually, and not by States, and was decided by yeas, 2; nays, 74. On account of this motion, Dr. Clymer, of Philadelphia, moved that the future sittings of the Convention be held elsewhere than at the University College; and another member proposed an amendment, that an adjournment immediately be made to the College of Physicians and Surgeons. Drs. Bedford and Paterson disclaimed all intention of opposing the Convention, and it was decided that Dr. Clymer's motion be laid on the table. A committee of nine was appointed to bring the subject of Medical Education before the Convention, consisting of Drs. Davis, March, Hayes, Walter, Bush, Bell, Haxhall, and the President.

The accredited delegates present on Tuesday were from the following institutions:—Vermont—Castleton Medical College, Vermont Medical College; N. Hampshire—Centre District Medical Society; Connecticut—State Medical Society and Medical Institution of Yale College; New York—State Medical Society, Medical Society of City and County, Bloomingdale Asylum, College of Physicians and Surgeons, King's



Co. Medical Society, University of the City of New York, Buffalo Medical Association, Erie Co. Medical Society, Albany Medical College, Geneva Co. Medical Society, Geneva Medical College, Madison Co. Medical Society, New York Hospital; Pennsylvania—Philadelphia Medical Society, Pennsylvania College; New Jersey—private individuals; Delaware—State Medical Society, Medical Association of Wilmington; Maryland—Medical College of Baltimore; Virginia—State Medical Society; Georgia—State Medical Society; Mississippi—State Medical Society; Indiana—La Porte University; Illinois—Medical Department of Illinois College; Tennessee—State Medical Society; Rhode Island—State Medical Society. And on Wednesday, the State Medical Societies of Vermont and Missouri were represented, also the Lunatic Asylum of Hudson and the New York Lunatic Asylum.

The following resolutions were presented on Wednesday by Dr. Davis, of the Committee on Medical Education, and after discussion were unanimously adopted:—

“*Whereas*, it has been shown by experience that the association of persons engaged in the same pursuit, facilitates the attainment of their common objects; therefore,

“1st. *Resolved*, That it is expedient for the Medical Profession of the United States, to institute a *National Medical Association*, for the protection of their interests, for the maintenance of their honor and respectability, for the advancement of their knowledge, and the extension of their usefulness.

“2d. *Resolved*, That a Committee of seven be appointed to report a plan of organization for such an association, at the meeting to be held in Philadelphia, on the first Wednesday in May, 1847.

“3d. *Resolved*, That a Committee of seven be appointed to prepare and issue an Address to the different regularly organized Medical Societies, and chartered Medical Schools, in the United States, setting forth the objects of the National Medical Association, and inviting them to send delegates to a Convention, to be held in Philadelphia on the first Wednesday in May, 1847.

“4th. *Resolved*, That it is desirable that a uniform and elevated standard of requirements for the degree of ‘M.D.’ should be adopted by all the Medical Schools in the United States, and that a Committee of seven be appointed to report on this subject, at the meeting to be held in Philadelphia, on the first Wednesday in May, 1847.

“5th. *Resolved*, That it is desirable that young men, before being received as students of medicine, should have acquired a suitable preliminary education, and that a Committee of seven be appointed to report on the standard of acquirements, which should be exacted of such young men, and to report at

the meeting, to be held on the first Wednesday in May, 1847.

"6th. *Resolved*, That it is expedient that the Medical Profession in the United States should be governed by the same code of Medical Ethics, and that a Committee of seven be appointed to report a code for that purpose, at the meeting to be held in Philadelphia, on the first Wednesday in May, 1847."

Dr. O. S. Bartles, of New York, offered the following resolution, which after considerable discussion was referred to a committee of seven, by a vote of 58 to 23.

"*Resolved*, That the union of the business of teaching and licensing, in the same hands, is wrong in principle, and liable to great abuse in practice. Instead of conferring the right to license on medical colleges, and State and county medical societies, it should be restricted to one board, in such State, composed, in fair proportion, of representatives from the medical colleges, and the profession at large, and the pay for whose services, as examiners, should, in no degree, depend on the number licensed by them."

The Chairman announced the various committees on Dr. Davis' resolutions—as follows:—

"On the Organization of the National Medical Institution"—Drs. J. Watson, Stearns, Campbell, Stewart, Stille, Davis, Cogswell, Fenner.

"On the Address"—Drs. Knight, Ives, Dow, Sumner, McNaughton, Blatchford, Boswell, Baxley.

"On the Requirements for a Degree"—Drs. Haxhall, Cullen, Paterson (Va.), Norris, Flint, Perkins, Wing.

"On Preliminary Education"—Drs. Cowper, Bush, Thompson (Del.), March, Atlee, Brainard, Mead.

The closing business of the session, on Wednesday, as we gather from the New York papers, was as follows:—

Dr. Thompson's resolution of thanks to the Colleges, for the offer of their rooms for the Convention, was taken from the table and adopted. A member moved a resolution to call on the different medical societies, in the different States, to report the births, marriages and deaths in their several States. Carried.—A vote of thanks was then proposed to the officers of the Convention, for the manner in which they had discharged their duties. Carried unanimously.—A vote providing for the publication of the proceedings of the Convention, in pamphlet form, was then offered, and adopted.—A resolution was passed, providing for the arrangement of a system of nomenclature of diseases, with reference to the registration of deaths.—An invitation from Dr. Delafield (V. P.) to the members of the Convention, to visit him at his house to-morrow (Thursday) evening, was accepted, with thanks, and unanimously.—Dr. Bell (V. P.) moved that this Convention approve the designs and publication of the Sydenham (publishing) Society, in England. Adopted.—Dr. Cogswell offered a vote



of thanks to the chairman for the manner in which he had discharged the duties of his office. Adopted.—Prof. Knight (P.) briefly returned his acknowledgments.—And the Convention then ad-journed, *sine die*.

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ARTICLE XIV.

MEDICAL CONVENTION AT ROCKFORD, ILL.

The adjourned meeting of the “Rock River Medical Society” took place according to notice, on Tuesday the 19th inst., at Rockford. We were present and were highly gratified by the zeal and unanimity exhibited, and the numerous attendance. It convinced us more than ever of the utility of meetings among physicians.

The address of the President, Dr. Goodhue, exhibited many interesting facts in regard to the early history of medicine in Northern Illinois, and contained sound and liberal views in reference to the conduct of practitioners. We hope hereafter to be permitted to lay some of those before our readers.

As this is the first Medical Society organized upon so extensive a scale in this region, we shall publish at length the constitution and laws in our next—they not having come to hand in season for the present No. D. B.

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ARTICLE XV.

RUSH MEDICAL COLLEGE.

The annual announcement of this Institution is now in press, and will with the catalogue be distributed to the profession immediately. Since its first organization, this College has progressed in the confidence of the medical public, if the increase in the number of students can be taken as an index, more rapidly, it is believed, than any other western medical school at its commencement. The first class, three years since, numbered about twenty students, that in attendance during the past winter, numbered upward of fifty, showing an increase of one hundred and fifty per cent. It is a gratifying reflection that this increase has been brought about only by

the advantages for improvement which the school offers to medical students.

It affords already the conveniences of a fine building; the supply of the material for dissecting is abundant; it has a good chemical apparatus, a cabinet of materia medica, and a mineralogical cabinet, while the means for illustrating healthy and morbid anatomy, by preparations, morbid specimens, and engravings, are ample. Surgery also in its principles and by operations upon the living and dead subjects, is fully taught. But the motto of the school is "progress," and efforts are now being made for adding greatly to the means. These additions will consist of a library embracing about 600 volumes of well selected and valuable medical works, calculated for reference and accessible to the students, but not intended for furnishing them with text books; of a set of drawings of large size, illustrating all the principal deformities, and dislocations. A hospital, where practical knowledge on all the various forms of disease may be witnessed, will also be established, affording to students an opportunity of becoming *practitioners*. With these advantages, and the care which will be taken to instil into the minds of students, elevated and honorable views of the profession and its duties, the Medical College of Chicago, it is believed, merits the confidence and support of the medical men in this region.



## PART V.—ABSTRACTS.

## ARTICLE XVI.

## MINUTE ANATOMY OF THE KIDNEY.

By a minute examination of the anatomical structure of the kidneys of one of the higher classes of animals, as of man, we find them composed of a secreting and a vascular apparatus.

The secreting portion, according to Bowman, consists of innumerable convoluted capillary tubes, the *tubuli uriniferi*. Each of these presents at its origin, where it is connected with the vascular apparatus, a cyst-like dilatation forming a cavity continuous with that of the tube, for the reception of that portion of the vascular apparatus, termed the Malpighian plexus.

The cortical substance of the kidney is composed, principally, of these tubes lined with their secreting cells of epithelium, which, like those of other secreting mucus surfaces, and like the cuticle, are continually being thrown off and renewed. Dr. Johnson has discovered that a very small quantity of fat is deposited in these tubes, even in a healthy condition of the organ.

As remarks Dr. Todd, "the condition of this epithelium affords a most important indication of the state of nutrition of the gland. If its nutrition be perfect, then its secreting functions will be well performed, and the epithelium will be healthy, but if, on the other hand, its nutrition is impaired, one of the results will be unhealthy secretion of epithelium."

The convoluted *tubuli uriniferi* pass towards the concave surface of the kidney, uniting in their course to form larger and more direct urinary ducts, which converge in groups to several points, thus forming pyramidal shaped bodies, the pyramids of Malpighi. The papillary apex of each pyramid, perforated by numerous openings by which the *tubuli* discharge their contents, is received into a cup like membranous sack, the calyx. The calices form three groups to communicate with as many cavities of large size, the infundibula, which also communicate with the pelvis.

The vascular apparatus of the kidney is formed from the

branches of the renal arteries, which divide and subdivide till they terminate at length in small tubes, the Malpighian arteries. Each of these small vessels passes to one of the dilated extremities of the tubuli uriniferi, pierces through its walls, and, by dividing into numerous very minute capillaries, forms within the cavity a vascular rounded tuft, the Malpighian plexus.

The walls of the minute vessels forming this plexus are thin and transparent, well adapted, evidently, for the passage of fluids. From the interior of the plexus a single vessel takes its origin, which, passing out of the cavity through its walls, breaks up again into numerous small vessels, which form another capillary plexus around the tubuli uriniferi, termed the portal-plexus, so named from the fact that the blood, as in the portal veins, passes through two sets of capillaries and furnishes the material secreted by the kidney, as in the liver, during its passage through the second set of vessels. The following is the language of Dr. Carpenter upon this subject :

“The *cells* lining the Tubuli Uriniferi are probably here, as elsewhere, the instruments by which the *solid* matter of the secretion is elaborated; whilst it can scarcely be doubted that the office of the Corpora Malpighiana is to allow the transudation of the superfluous fluid through the thin-walled and naked capillaries of which they are composed. ‘It would, indeed,’ Mr. Bowman remarks, ‘be difficult to conceive a disposition of parts more calculated to favor the escape of water from the blood than that of the Malpighian body. A large artery breaks up in a very direct manner into a number of minute branches; each of which suddenly opens into an assemblage of vessels of far greater aggregate capacity than itself, and from which there is but one narrow exit. Hence must arise a very abrupt retardation in the velocity of the current of blood. The vessels in which this delay occurs are uncovered by any structure. They lie bare in a cell, from which there is but one outlet, the orifice of the tube. This orifice is encircled by cilia, in active motion, directing a current towards the tube. These exquisite organs must not only serve to carry forward the fluid which is already in the cell, and in which the vascular tuft is bathed, but must tend to remove pressure from the free surface of the vessels, and so to encourage the escape of their more fluid contents.’

“There is a striking analogy between the mode in which the Tubuli Uriniferi are supplied with blood for the purpose of elaborating their secretion, and the plan on which the Hepatic



circulation is carried on. The secretion of the Liver is formed from blood conveyed to it by one large vessel, the Vena Portæ which has collected it from the Venous capillaries of the chylipoietic viscera, and which subdivides again to distribute it through the liver. The secretion of the Kidney, in like manner, is elaborated from blood which has already passed through one set of capillary vessels,—those of the Malpighian tufts; this blood is collected and conveyed to the proper *secreting* surface, not by one large trunk (which would have been a very inconvenient arrangement) but by a multitude of small ones,—the *effluent* vessels of the Malpighian bodies, which may be regarded as collectively representing the Vena Portæ, since they convey the blood from the systemic to the secreting capillaries. Hence the Kidney may be said to have a *portal* system within itself.”

The renal or emulgent veins are formed of branches from the portal plexus above described.

Some objections were at one time raised to the views of Mr. Bowman, adopted by Dr. Carpenter as quoted as above. Dr. Garlach, however, has more recently thoroughly investigated the subject. The result is that in all of the most important points he has arrived at the same conclusions with Bowman. The only points of difference are noticed in the following quotation from Rankin's Abstract, Part 2d.

“The fact of the direct continuity of the Malpighian capsules with uriniferous tubules, as discovered by Bowman, was clearly confirmed, but it would seem that Bowman's account, which describes the tubules as terminating in these capsules as by so many blind pouches, is not quite correct: the capsules are merely offshoots, or sac-like dilations from the sides of each tubule with the cavity of which they communicate by a slightly narrowed neck, and are not placed at the terminal extremities of the tubules. Gerlach states that a tubule, having given rise to a pouch, continues its way onwards, forming fresh pouches here and there, and eventually terminates, not in a blind extremity, but by forming a loop; and these loops which the various tubules form have, doubtless, been mistaken for so many blind extremities.

“A curious circumstance remarked by Bowman was that each Malpighian tuft lies quite free within the cavity formed by the capsule, uncovered even by a layer of epithelium: this being the only known instance of a blood-vessel lying bare on a secreting surface, naturally attracted much attention, and was discredited by Reichert and others. Bowman inferred from such an arrangement that the watery and soluble parts of

the urine are distilled from the blood of the vessels composing the tufts, whilst the essential elements of the urinary secretion are eliminated by the cells lining the internal surface of the tubuli uriniferi. Gerlach states that he examined this point, and found upon removing the capsule, that the Malpighian tuft was completely covered by a thick layer of nucleated cells. This layer he states to be continued from the one which lines the entire internal surface of the capsule, and which is reflected from this surface on to the Malpighian body, just as the peritoneal coat lining the internal surface of the abdominal cavity is reflected on to the intestines; in both cases a space exists just at the point of reflection which is uncovered by epithelium. The vessels composing the Malpighian tuft therefore are in immediate contact with, or imbedded in a thick layer of nucleated cells, which, doubtless, are actively engaged in carrying on the process of urinary secretion."

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## ARTICLE XVII.

## BLOOD IN DROPSIES WITH ALBUMINOUS URINE.

In the Abstract in our last number upon the Physiology and Pathology of the Blood, want of space compelled us to defer, for the time, the consideration of that important pathological condition of this fluid, in which there is a diminished amount of the albumen of the serum.

*Dropsical effusions*, as has been proven by numerous investigations upon this subject, are, generally, coincident with this abnormal condition of the blood.

This being admitted as a fact, we are naturally led to inquire why it is that a tendency to dropsy follows thus, a loss of albumen?

We may obtain some light upon this point by inquiring into the composition of the effused fluids, and into the general condition of the system in dropsies. Investigations upon this subject show, "that the serosity which has been effused, even while remaining composed of the same materials as the serum of the blood, contains, proportionally, more water than this fluid, and much less of the organic principles, particularly albumen."

In thirty-six analyses of dropsical fluids made by Andral, the maximum amount of albumen was 48, and the minimum 4,—68 or 70 being the normal proportion in the blood.



The relative amount of albumen in these fluids, seems not to be influenced either by the seat or cause of the disease; the variation seemed rather to depend upon the general condition of the patient. In proportion to the varying strength of the constitution, albumen increases or diminishes. In cases of hydrocele, where the constitution remains comparatively strong and healthy, the amount of albumen varies from 35 to 59, while, on the other hand, in ascites and other dropsies, attended with much general debility, the amount of this constituent is small.

It may be remarked, also, that the amount of albumen in the fluids, effused from inflamed surfaces, is large in proportion to the activity of the inflammatory action. The above facts seem to indicate that impoverished and thin blood passes more readily through relaxed and debilitated tissues, and that these combined pathological conditions of the solids and fluids are the immediate causes of dropsical effusions.

As to the remote causes of these abnormal conditions, Andral remarks that "cases of dropsy following insufficient alimentation have been cited, and Dr. Graspard has even reported a true epidemic of this kind, that prevailed in 1816, through several departments of the interior of France, as a result of a great scarcity which had afflicted those districts. The inhabitants had been reduced to seek their food among the roots and herbs of the fields. A large number of them became dropsical. History informs us that the same thing has occurred at other epochs, under the influence of the same circumstances. It is probable that in these singular epidemics, the insufficiency of alimentation must have modified the composition of the blood; that there was the point of departure of the dropsy, and it is allowable to conjecture that the blood under the empire of this influence experiences a diminution of its albumen."

Dropsical effusions and deficiency of albumen are generally simultaneous pathological conditions. In some cases, however, the cause of dropsy seems to act mechanically, by obstructing the circulation and thus causing congestion and a consequent effusion, of the blood's more fluid constituents, through the coats of its vessels. Examples of the kind are presented in cirrhosis of the liver, preventing the passage of blood from the portal veins, thus causing ascites; and in such

cardiac diseases, as of the valves &c., which prevent the free return of blood from the systemic veins, producing general dropsy.

But of all the diseases concomitant with dropsical effusions, those of the kidneys, producing albuminous urine and a consequent diminution of the blood's albumen, are the most common and important. We will now, therefore, give a brief synopsis of the more recent and generally adopted views of pathologists upon this class of diseases.

We will premise, however, that in order fully to comprehend the changes, caused by disease in the structure or function of an organ, it is important that we should first thoroughly understand its healthy organization and physiological action. We have given, therefore, in the preceding article a brief history of the minute anatomy of the kidney, and of the more modern views with regard to its functions.

Dropsical effusions with albuminous urine, may be said, in general terms, to depend upon a diseased condition of the kidney, by which the free circulation of blood through its capillaries is prevented. Upon referring to the structure of these glands, it is evident that the blood in its course from the renal arteries to the emulgent veins, must pass through both the Malpighian and portal plexuses, the former being within the cyst-like dilatation which communicates directly with the tubuli uriniferi, the latter external to and surrounding the walls of these excretory tubes. It is evident, then, that an obstruction to the passage of blood through the portal plexus would cause an accumulation and congestion to take place in the Malpighian tuft.

The texture of the vessels forming the Malpighian plexus, being thin and delicate, and peculiarly favouring the passage of fluids; in the diseases under consideration, and in consequence of such a congestion, the serum of the blood exudes from them into the uriniferous tubes, and in cases of long continued and much congestion, the pressure is often such as to produce a rupture of the coats of these vessels, and a consequent escape of other constituents of the blood.

Albuminous urine then, is indicative of an amount of congestion in the Malpighian plexus, sufficient to cause an exudation of serum, of which albumen is one of the principal ingredients, through the coats of these capillary vessels. And



whenever red globules appear in the urine, it is an evidence of rupture of the walls of these delicate tubes.

The serum of the blood may escape and produce albuminous urine, either with or without this laceration of the vessels. When, however, this fluid has a smoky appearance, indicating the presence of blood capuscles, or shows indications of fibrine, by the presence of coagulated fibrinous moulds of the tubuli, we have unmistakeable evidence of rupture of the capillaries of the Malpighian plexus.

It appears, then, that these abnormal constituents of the urine in these cases, are not secretions from the kidney, but proximate elements of the blood, which have escaped from vessels, ruptured by congestion, produced by obstruction to the circulation in the portal plexus.

This obstruction, according to Dr. Johnson, is produced by the accumulation of epithelium cells in the tubuli, distending and pressing them together so as to prevent the free passage of blood through the portal capillaries by which they are surrounded. This accumulation may take place suddenly and rapidly, producing congestion and the consequence, acute or inflammatory dropsy; or gradually and slowly, and in connection with fatty depositions, as in fatty kidney or Bright's diseases.

The first mentioned and more acute form of renal disease is generally caused by irritating matters retained in the blood, as for instance the cutaneous excretions, not eliminated when the functions of the skin have been checked by disease or exposure to cold. For as the cutaneous and renal functions are similar and at times reciprocal, the irritatng matters not excreted by the skin, in such cases, seek a passage from the system through the kidneys, causing increased action, irritation, congestion, and a morbid generation and accumulation of epithelium cells.

The following case, reported by Dr. Todd, will serve to illustrate.

"A woman 25 years of age was admitted to the Hospital in the sixth month of her pregnancy. She had always enjoyed good health till about a month ago, when she caught cold, and became troubled with cough and hoarseness. A fortnight after this, she observed a swelling of the labia pudendi and of the legs; her urine became scanty, and in it she noticed a red se-

diment. When she came into the hospital there was considerable œdema of the labia, and of the lower extremities, accompanied with some fluctuation of the abdomen. The urine was scanty, smoky, and highly acid; it was turbid, and abundantly albuminous; it contained lithate of ammonia, and had a sp. gravity of 1.027. The microscope was not used; but the presence of blood was sufficiently evinced by the smoky and albuminous character of the urine. The skin was dry. In this case I endeavored to promote the healthy action of the skin by the use of warm baths, and by the administration of Dover's powder and antimony. Under this treatment the albumen soon disappeared from the urine, and the dropsy from the legs, and in twelve days all the symptoms that had previously been present had vanished."

"In these classes of cases, the aim of the treatment must be to restore the healthy action of the skin, to relieve congestion, to purify the blood of noxious ingredients by promoting the various excretions. How far the treatment to be pursued may be antiphlogistic, or more or less stimulant and tonic, must depend in a great degree on the peculiar circumstances of each particular case."

It has already been stated that there are certain affections, during the course of which, or subsequently, the dropsical diseases under consideration often appear. During the continuance, or after an attack of scarlet fever, for instance, dropsical effusions with albuminous urine frequently supervene, producing fatal effects often, when the original disease has been of the mildest form. Facts leading to more correct pathological views with regard to these cases, are, therefore, interesting and of great practical importance.

Why is it, then, that dropsy with albuminous urine, follows so frequently an attack of scarlet fever?

It is a well known fact, that the "scarletina poison" effects, by its morbid influence, all the organs of the body, producing general irritation, congestion, and a depressed condition of the vital powers. Among other effects, it is evident that the healthy functions of the skin must be greatly impaired, if not entirely suspended, thus causing an increased flow of morbid matter to the kidneys, and adding to the irritating and depressing influence already acting upon these organs. It is also true that exfoliation takes place, not only of the cuticle from the integuments covering the body, but also of epithelium scales, from the mucous membranes, lining cavities, and excretory tubes.



It seems, then, that coincident with, and following an attack of scarlet fever—the morbid cause of this disease, irritating matters not excreted by their proper organs, increased action, and a tendency to the production of an exuberance of epithelium, are all causes acting upon the kidneys to produce congestion and rupture of their Malpighian capillaries, and as the consequence, dropsical effusions and albuminous urine.

The following is a case in point:

“A boy, five years old, has had scarlet fever, which seems to have run its usual course. About three weeks after the abatement of the fever he became universally dropsical. His urine was found to be scanty in quantity, smoky in colour, presenting a dark appearance, as if mixed with carbonaceous matter. On the application of heat, or of nitric acid, it yielded an abundant precipitate of albumen. Under the microscope other constituents of the blood were plainly seen, namely, blood discs and fibrinous casts of the uriniferous tubes. There was also a large quantity of lithic acid. The skin was dry, not freely secreting, and some fever was present. In order to promote the action of the skin, I employed the warm-bath and sudorifics, liq. ammon. acet. with nitre, and as the presence of blood in the urine indicated congestion of the kidney, a few leeches were applied to the loins. Not three days have passed, and the dropsy is almost cured. The urine is more copious, less albuminous, and less smoky.”

The treatment in cases like the above, should be upon the same general plan as that previously recommended.

There is still another most formidable disease, which, though slower in its progress, and differing in its pathology from those already described, produces, in the blood and urine, the same pathological changes.

From what has been said of the diseases already described, it appears that in cases following exposure to cold and other causes, which act promptly and suddenly, the obstruction to the circulation, in the portal plexus, is caused by an accumulation of epithelium cells in the tubes of the kidney, in unusual quantities, but normal in quality. In Bright's disease, on the other hand, the obstruction is caused, not by an accumulation of healthy epithelium cells, but by a morbid deposition of fat distending and filling their cavities.

It appears, from recent investigations upon this subject, that a small quantity of fatty matter is naturally deposited in the epithelium cells of the kidney, and that its abnormal accumu-

lation, distending these cells and filling the tubuli, obstructs the circulation in the capillaries of the portal plexus, and thus causes congestion of the Malpighian tuft, albuminous urine, dropsical effusions, and at length suppressed secretion, followed by all the fatal effects consequent upon retention of urea in the circulating fluid.

With regard to the accession and progress of Bright's disease, it may be remarked that it presents in its course three distinct stages, indicating a greater or less deposition of fatty matter.

The symptoms, in the first stage, are remarkable for their obscurity, and for the absence of any marked indications of renal disease. The most prominent symptoms are those of dyspepsia, imperfect assimilation secretion and excretion, with indications of deficiency of the blood's globular element.

These signs of disease are, often, so slight, however, as not to attract the attention of the patient or his friends, and even, when a physician is called, he finds no certain indication of the disease in this insipient stage, unless by a microscopical examination, fatty epithelium cells are discovered in the urine.

The second stage, being that in which medical advice is generally first sought, is characterized by pain in the loins, pallid countenance, edema of face and lower extremities, dyspepsia, frequent micturition, especially at night, and urine albuminous or showing the presence of other ingredients of the blood, and in all cases containing fatty epithelial cells.

The disease, in this stage, is, often, of such an acute character as to lead to its being attributed to inflammation.

In the third and last stage the dropsical effusions are general, there is anasarca and often ascites; the urine is albuminous, and its secretion imperfect and in small quantity, consequently, there is a retention of urea in the blood, giving rise to epilepsy, fatal coma, and other cerebro spinal affections, indicative of its poisonous effects.

The pathological changes indicative of Bright's disease, are irregular vascular congestions, of the structure of the Kidney, the vessels being full at some points, and empty at others, giving a tuberculated and mottled appearance to the surface of the organ. The true and never failing pathological change in Bright's disease, however, is the presence of epithelium cells filled with fat, and distending the tubuli.



This fatty deposition in the cells of the kidney is produced evidently by similar, if not the same causes, which give rise to fatty liver, in which there is an accumulation of the same matter, in the epithelial cells of this organ.

“The frequent association of fatty liver with fatty kidney strongly indicates that the two diseases are closely allied to each other, and owe their existence to a similar, or even to the same cause. There is no evidence that this disease is inflammatory. Fat is certainly not a product of inflammation, nor do we find any of the inflammatory products in the kidneys in this disease. No pus, no gangrene, no lymph, in the substance of the kidney. To explain the disease, we must look to those circumstances which favour the formation of fat; deficiency of oxygen, want of exercise, impure air, and the like.

“Mr. Simon and Dr. Johnson have artificially produced the disease. They kept cats for some time in the dark, causing them to breathe impure air, and to live on unwholesome food. The results were, that they were enabled to trace the disease through its three stages. They drew off the urine from the bladder by a catheter, and examined it from time to time; they found that first fat began to appear in the urine, with numerous gorged cells. There was soon a tendency to dropsy, and the urine became smoky and albuminous. The dropsy increased, the urine became scanty, and death from suppression followed.

“In the treatment of the disease, we must look to the particular stage in which we find it. If perchance the patient applies for advice in the very earliest stage, and the physician is fortunate enough to detect it, the disease may be cured. If, before mechanical obstruction and its consequences have arisen, the mode of life and the habit of the person be changed by pure air and careful attention to diet and exercise, then it is quite possible that the coming evil may be averted. Unfortunately, however, a patient seldom applies for medical aid thus early.

“In the second and third stages we can only palliate suffering, by relieving congestion, promoting the flow of urine, and the action of the skin; and perhaps we may check the tendency to the abnormal deposit of fatty matters, by restricting him to a diet which contains neither fat nor butter, nor any of those nonazotized substances which are nearly allied in chemical constitution to fat, and are easily convertible into it—such as starch, sugar, potatoes, &c. We must not allow fat, butter, and such things, to be taken, nor any of those substances which, like potatoe, starch, &c., are easily convertible into fat.”

W. B. H.

## PART VI.—SELECTIONS.

1. *Phlebitis*.—The internal surface of the whole vascular system, by which it comes in contact with the blood, is lined with a delicate serous membrane, which is the seat of several interesting diseases. That portion of it which lines the cavities of the heart, is liable to become inflamed from rheumatism and other causes, and thus is laid the foundation of most of the organic diseases of this organ. The lining membrane of the arteries is also the seat of inflammation in the disease called the dry gangrene, and in other cases, its inflammation causes the deposition of calcareous and cartilaginous matters which terminates in the production of aneurisms. The lining membrane of the veins is even more than the preceding liable to inflammation from mechanical injuries, surgical operations and other causes, and a train of morbid phenomena is thereby induced which has not been well understood until of late years.

The effects of *Phlebitis* are of entirely different character accordingly, as it terminates by adhesion, or passes on to suppuration.

*Adhesive Phlebitis.*

It has been demonstrated by experiments on animals and by pathological observations, that whenever inflammation is excited in the lining membrane of any part of the vascular system, the blood has a tendency to become coagulated in the part which is the seat of the inflammation. In endocarditis, fibrinous concretions are very commonly found in the heart after death, and probably in many cases have a direct agency in causing death. In arteritis, the blood becomes coagulated in the veins, and in this way is produced the dry gangrene of the extremities in old people; and in other cases where the inflammation is acute and more extensive, a rapid gangrene of the whole limb occurs. Ollivier and others mention cases in which the pulmonary artery was inflamed, and death had been caused by the mechanical obstacle to the circulation opposed by the coagulum contained in the vessel. I shall presently allude to a case in which an inflammation of the venous sinus of the brain caused death by obstructing the circulation through this organ.

The first effect of *Phlebitis*, is then, to cause the formation of a coagulum which obstructs the circulation through the inflamed vein.

It is difficult to offer any explanation of this tendency of the blood to coagulate in an inflamed vessel. Indeed to do this, it would be necessary first to explain why the blood remains fluid while circulating in healthy vessels. This fluidity does not depend on its motion, nor on the exclusion of air, nor on



any other mere mechanical or physical condition, for all these conditions may be maintained in blood which has been drawn from a living vessel, and yet it coagulates. The fluidity of the blood in the living body depends on some nervous influence exerted on it by the walls of the vessel, and accordingly it is found that where this nervous influence has been diminished, the tendency of the blood to coagulate, is increased. After blows on the head, the blood coagulates rapidly, as well as after hemorrhages; so that if in drawing blood from a patient, we receive it in separate cups, we find that the portion last drawn coagulates most rapidly on account of the tendency to faintness which the loss of blood has occasioned. Thus it is, that by an admirable provision of nature, the faintness, caused by the loss of blood, has a tendency to stop accidental hemorrhage, not only by diminishing the impulse of the heart, but also by the increased disposition of the blood to coagulate and thus plug up the bleeding vessel. Hence too, the utility of rapid abstraction of blood, so as to induce faintness, in cases of internal hemorrhage.

All that can be said in explanation of the coagulation of the blood in an inflamed vessel, is that it depends on a diminution or perversion of the nervous energy in the part.

I return from this digression, to trace the phenomena which follow this coagulation of the blood in an inflamed vein. Gradually the colouring matter is absorbed, so as to leave a fibrinous mass, which after a time becomes organized, and the vessel is thus converted into a solid cord. In other cases, when the inflammation is more limited, or less severe, the coagulum may be washed away by the current of blood, and the circulation through the vessel restored as before.

These are the changes which occur in what is called Adhesive Phlebitis. They are of little importance, and in general, give rise to no constitutional disturbance. However, besides these local changes, some other disturbances may occur which depend on the mechanical obstruction to the circulation caused by the obliteration of the veins. The extent of these secondary disturbances will depend on the size and situation of the vein which is the seat of the inflammation.

When the calibre of a small venus trunk is thus obliterated, the blood readily makes its way through collateral branches by reason of the free anastomoses existing in all parts of the venus system, and no notable derangement of the circulation ensues. But when large venus trunks are inflamed, and the inflammation extends to their ramifications, serious accidents may be produced by their obliteration. The impediment to the circulation causes a venus congestion in the part, and this is followed by tumefaction, serous effusion in the cellular tissue, and functional derangement of the organ effected. When an important organ is thus effected, death ensues.

One of the most frequent cases of Adhesive Phlebitis is seen in the disease called Phlegmasia Alba Dolens.

It has been remarked by Cruveilhier, that the uterus after labor is in the condition of a wounded organ, and inflammation of its veins invariably follows, and more particularly of those situated where the placenta was implanted. In the great majority of cases, this inflammation subsides after a few days, and gives rise to no functional disturbance, but in some cases it extends to the large veins of the pelvis, and thence to the crural veins and their ramifications of one side, and then we have the symptoms of Phlegmasia Alba Dolens.

### *Suppurative Phlebitis.*

It is well known to surgeons, that certain conditions of the constitution, and certain external influences give to all wounds a strong tendency to pass to suppuration. Among these external influences are the effluvia of large cities, and still more of crowded hospitals, so that surgeons practising in such circumstances rarely see an amputation healing by adhesion. Now it is precisely in these conditions that Phlebitis has also a tendency to pass to suppuration, and then it gives rise to a train of results which I am now to describe.

When suppuration is about to occur in an inflamed vessel, it is preceded by the formation of a coagulum which obliterates its calibre. This coagulum is more dense at its surface where it is in contact with the vessel than in its central part, and hence, when suppuration commences in the walls of the vein, the pus passes by infiltration into the centre of the coagulum. If the vein is examined at this stage of the disease, there is found a purulent collection in the centre, surrounded by a fibrinous coagulum adhering to the walls of the vein, and forming, at either end, a dyke which prevents the mixture of the pus with the blood. As the collection of pus increases it may make its way through the vessel and point externally, and then we have a superficial abscess communicating with the cavity of a vein. Such abscesses, it would seem, are not very uncommon in surgical practice, though it is not always easy to determine their character. This disease is still local, and gives rise to no constitutional disturbance; it is not more serious than adhesive Phlebitis.

We now come to the case in which, the coagulum which plugged up the vessel, and separated the purulent deposit in its interior, from the blood, gives way and allows the mixture of pus with the blood. The occurrence of this accident is marked by the most serious symptoms, pointing to a termination almost invariably fatal. The patient, whose position up to this time had presented nothing alarming, is suddenly seized with severe chills, followed by typhoid prostration, and death occurs in from eight to fifteen days.



This is the *Purulent infection of the Blood.*

Examinations after death from this cause, show the inflamed veins filled with pus and sanguine concretions. This purulent matter can be traced along the veins towards the heart. Some have supposed that they had detected pus globules in the blood by a microscopic examination, but there are some circumstances which render this proof of their presence in this fluid doubtful. M. Mandl has found in healthy blood, fibrinous concretions which might readily be confounded with pus globules. The most striking appearance in these cases is the great number of abscesses found in the lungs, liver, brain and muscles. Purulent effusions are also found in the joints. Dance has particularly described the appearance of these abscesses, and his description is important as indicating their mode of formation. He establishes three stages of their development. In the first stage, there is found a sort of ecchymosis or sanguineous infiltration, in the midst of, and around which, are found veins containing pus; the second stage consists of the formation of a nucleus which is hard and first of a blackish and afterwards of a whitish colour; finally, in the third stage, this nucleus softens and is converted into a purulent collection which at first occupies the centre, and then the whole of the engorged portion. These three stages are commonly seen in the same subject. Sometimes death takes place before any of these lesions have passed beyond the first stage. These abscesses have been called *Metastatic* from an erroneous view of their mode of formation.

The symptoms of the purulent infection of the blood have been very well detailed by Berard, as follows:

“It is announced by a violent *chill*, more or less prolonged. The feeling of cold is intense and the patients ask for more covering as in intermittent fever. This symptom had been noticed by good observers, who had recognized the danger of it before its true meaning had been discovered. Have you had chills? Such was the question which Dupuytren always addressed to those on whom he had operated. To this succeeds a marked heat and reaction, followed by a sweat which is viscous and not critical. The chills are renewed within twenty-four hours, and afterwards several succeed each other at intervals. It is only in the first days that the chills are intense; they are afterwards transient or even entirely wanting.”

“The pulse is always very frequent, its other characters are variable; towards the end it becomes small and thready.”

The patients are often delirious during the night. During the day, they are unconscious of the danger of their situation; they suffer little, and if questioned, answer that they feel well.

“At an advanced period of this disease, the skin takes a

yellowish tinge as in jaundice, but the other signs of jaundice are wanting."

"The urine and other excretions are fetid; diarrhea is often present."

"Purulent collections sometimes form in the cellular tissue; at other times pus collects in some of the articulations."

"Sometimes there are symptoms and signs indicating the formation of abscesses in the viscera, but in general they are difficult of detection. The abscesses of the lungs are too small to give rise to any decided signs by auscultation, or to produce much flatness on percussion. They are accompanied by a slight cough and sometimes by rusty expectoration."

"When the metastatic abscesses have caused an inflammation of the serous membrane covering the organ in which they exist, it is then possible to detect the presence of this inflammation. Such cases are common."

"As to the progress of the disease it is generally rapid. Death occurs in eight, ten, or twelve days, but some resist the disease during several weeks. The rapidity of the accidents is in proportion to the quantity of pus which has passed into the veins. Sometimes at the end of twenty-four or thirty-six hours, there is an apparent improvement which is very apt to deceive."

It had been remarked by the older surgeons that after blows on the head the patient sometimes died after exhibiting the symptoms similar to those I have described, and that abscesses were found in the liver and other organs. They had also observed similar occurrences after surgical operations followed by suppuration. The numerous abscesses observed after death were ascribed to the absorption of the pus from the suppurating surface and its transfer and deposit in the different organs, and for this reason these were called metastatic abscesses. Other explanations more or less fanciful were offered, but I believe, that it is to Dance that the honor is due of having first pointed out the connection of these accidents with Phlebitis.

In large cities and still more crowded hospitals, it is very rare to find wounds uniting by the first intention; they almost invariably pass to suppuration. It is in such situations that it is so common to see patients die after amputations or even after much slighter operations, exhibiting the symptoms during life, and the lesions after death which I have described as belonging to the purulent infection of the blood. This train of accidents, leading almost always to a fatal termination, occurs with deplorable frequency in the hospitals of Paris after amputations, and though with less frequency, it happens in the practice of all surgeons.

"When," says Berard, "purulent infection succeeds to a surgical operation or accidental injury, the wound after being painful, suddenly changes its appearance; its edges fall in and



the granulations on its surface become soft and flabby, and pale. The pus is serous and fetid; its quantity does not diminish sensibly during the two first days, but after this, it becomes less abundant. If a bone has been divided, its surface is dry and of a grayish colour."

In what manner does the blood become infected in these cases?

I have already said that the older surgeons accounted for the formation of the abscesses found after death, by supposing the absorption of pus from the wound, and its conveyance by the circulation to the different organs where it is deposited; so that, in this view, the pus found in the abscesses was produced by the wound. This opinion appeared to derive confirmation from the dryness of the wound in such cases. It must, however, be observed that this dryness does not occur until about two days after the first symptoms have manifested themselves, and hence it must be looked upon as a consequence and not as a cause of the disease. But there are other considerations which render such an explanation inadmissible.

When pus is examined under a microscope, it is found to consist of globules floating in a fatty albuminous fluid, or liquor puris. These globules are notably larger than the disks of the blood, and modern physiology has shown that there are no openings in the capillaries by which bodies of this size could be introduced. The absorption of pus unchanged is therefore impossible.

Indeed we do find that purulent effusions are sometimes removed by absorption, as in the case of some abscesses in the pleura. In such cases, the absorption gives rise to no constitutional disturbance, because the pus has not been absorbed until it has undergone a change, which has deprived it of its distinctive characters, and thus rendered its introduction into the blood harmless. First, only the fluid portion is absorbed, leaving the globules, which either remain as a solid mass, or are dissolved before they are absorbed.

The pus which infects the blood must then come from some other source than the suppurating surface. This source was first pointed out by Dance, and his views have been adopted and carried out by Cruveilhier and other pathologists.

The veins around a suppurating surface are necessarily involved in the inflammation. In ordinary cases this inflammation is of the adhesive character, and hence no general disturbance is caused by it. But under miasmatic influences, and in certain states of the constitution, there is, as already stated, a tendency in all inflammations to run into suppuration. Hence, in these circumstances, the inflamed veins around the suppurating surface secrete pus, which passes into the mass of the blood, as in the cases of inflammations of the larger veins. There is therefore no essential difference between the mode

of production of the purulent infection of the blood from a wound or suppurating surface, and that which follows the ligation or other injury of a large venous trunk. The difference consists in the mode in which the inflammation is caused; in the one case it is by direct violence, in the other case by contiguity to an inflamed part. Phlebitis necessarily exists around a suppurating surface, and accordingly as it is of the adhesive or suppurative character will it be harmless or fatal.

Where there are veins around a suppurating surface which from being situated in bony structure, or from their connexion with fasciae, remain patulous, this accident is most likely to occur; not because the pus is sucked in by the effect of atmospheric pressure, as has been said, but because the pus coming in contact with the lining membrane of their veins, excites inflammation in it. For this reason, surgeons who practise in hospitals are much more apprehensive of the results of operations in which bones are divided, as amputations, than of those which involve only the soft parts. This explains also the occurrence of this accident after blows on the head, which excite inflammation in the diploic veins of the cranium, and when this passes to suppuration, it leads to the purulent infection of the blood. Hence those abscesses of the liver which so much puzzled the older surgeons.

Surgeons practising in healthy localities have rarely occasion to witness this terrible disease, although no locality can procure an entire exemption from it, nor can any care always guard against it. It is the scourge of crowded hospitals, and causes a frightful mortality among the amputated and wounded.

There is yet another mode in which this accident may be produced. As has been before remarked, parturition is always followed by Phlebitis, which in ordinary cases, passes off without notice. In other cases, it extends to the veins of the pelvis and even of the extremities, and causes phlegmasia alba dolens. Again in other cases, in consequence of the bad air of hospitals, or other causes, this Phlebitis passes to suppuration, purulent infection of the blood follows, and then we have the most fatal form of puerperal fever.

Thus it is, that Phlebitis, whether it takes place in the larger veins from direct injury, or in smaller veins from their contiguity to an inflamed surface, or in the veins of the uterus after parturition, may terminate in suppuration, and produce the purulent infection of the blood. Surgeons had long been familiar with the fact, that death often occurred after amputations and similar injuries, and with the appearances presented by the organs after death, but their interpretation of the fact was defective. Modern pathology first traced these results to their origin in the inflammation of the veins.

One question still remains. Why does the passage of pus



into the blood cause the symptoms and lesions I have described?

No satisfactory answer can be made to this question. Pus exercises a poisonous agency on the blood, but in what mode it operates, is uncertain. Some experiments of Cruveilhier made it probable that the numerous abscesses of the viscera may be excited by the stoppage of a globule of pus, in a capillary vessel, which produces an afflux of blood and congestion, which characterize the first stage of these abscesses. But death is not caused by these abscesses alone, for it sometimes occurs before they are formed, or at least while they are only in their forming stage.

Before concluding this subject, I would speak of the condition of the system which resembles the purulent infection of the blood, and which is often confounded with it, but which differs from it in its mode of production and in its result.

Every practitioner knows that an abscess may exist for months and give rise to no constitutional disturbance, so long as the access of air to its contents is prevented. This is the case, for example, with purulent collections depending on caries of the vertebræ, which descend and point in the pelvis or on the thigh. If such an abscess is opened, we find that after a few days the pus which issues from it becomes fetid, especially if it does escape freely, and there appears fever and other constitutional symptoms under which the patient sinks after a longer or shorter period. The condition has some resemblance to the purulent infection of the blood, but is essentially different from it. There is here no suppurative Phlebitis nor passage of pus into the blood, nor do we find after death the numerous abscesses which are characteristic of purulent infection.

The condition I am now describing is attributed by Berard to the absorption of putrid matters in contact with the suppurating surface. So long as this surface produces healthy pus, which readily passes off, no constitutional disturbance occurs; but when the pus remains in contact with the surface, until it becomes fetid, then the fever and other disturbances come on. Berard calls this the *putrid infection* of the blood.

It is often very important to distinguish between these two conditions, and in general the diagnosis is not difficult.

The fever, which is one of the most constant symptoms of putrid infection, is not accompanied by the violent chills which usher in and attend the purulent infection. When this fever is prolonged, it assumes the hectic type.

In putrid infection the digestive organs almost always are affected: the appetite is lost, the stools become loose, and ultimately a colliquative diarrhea sets in. The patients wear away, and become emaciated; the skin assumes a dingy ap-

pearance; they are irritable and sensitive; their countenance is expressive of suffering.

The two conditions differ also in their progress. Some persons have chronic suppuration with putrid absorption, and resist it during months and years. Purulent infection is always fatal within a few days: it never becomes chronic.

They differ besides in the result. Putrid infection can be cured, provided we remove the cause; that is, the presence of fetid pus in contact with the surface in suppuration, whether we do this by preventing the accumulation of the pus as its focus, or by removing the part diseased. Purulent infection is incurable, if we except one or two cases of reputed recoveries among the thousands which are fatal. There are no remedies against it, and where it has once occurred, it is of no importance what is done to the wound in which it had its origin.

No treatment is known for purulent infection of the blood. Something may be done in preventing the suppuration of the veins, but when the accident has happened, all our efforts to arrest a fatal termination will be fruitless. There are one or two cases in which recovery took place, but in these it did not seem to depend on the treatment pursued.—*Transactions of the Medical Society of the State of N. Y. Dr. Hun's Address.*

2. *Neglect of the study of Insanity by Physicians.*—Many physicians in general practice are, we think, too apt to consider insanity a disease with which they have but little or nothing to do. Hence they often neglect to qualify themselves, by study and careful observation, to treat it properly. Their attention is not directed to it, the same as to other diseases, by lectures in the medical schools, and they seldom purchase and read the best treatises on the subject.

It is very true, that in most cases, when the disease becomes established, it cannot be well treated at home. Patients often become prejudiced against their nearest friends, and will not hearken to their advice nor take any medicine. For these reasons and to remove them from the exciting causes of their disease, as well as to have them treated properly in all respects, it is usually necessary to place them in an asylum. Still there are instances, though they are not common, when none of these objections nor any other exist to the patient remaining at home, and being treated by his ordinary physician. It is therefore very necessary that physicians in general practice, should qualify themselves to prescribe in cases of insanity, as well as in other diseases.

But admitting that no such cases occur, it is still important for them to thus prepare themselves in order to *prevent* insanity, and to *arrest* it in its incipient stage.

We have no hesitation in saying, that if the physicians of the



country were fully aware of their duty to the community in this respect, and would exert themselves to prevent insanity by timely advice, and to arrest it in its early stage, that they would do those predisposed to insanity and the insane themselves, an amount of good unequalled by that of the asylums of the country.

They should understand and be able to recognize its earliest symptoms, for as has been said, insanity often, and we believe we may say most generally, exists in a slight and scarcely perceptible degree for months, before it is generally noticed. They should know how liable many are to this disease from hereditary predisposition, from previous attacks, long continued menorrhagia or other diseases, from repelled eruptions and extreme nervous susceptibility, and be able to advise such and warn them in time of impending danger. How many cases of puerperal insanity, or of that insanity that comes on after child-birth, might be prevented by timely precautions?

Physicians should study the various causes of mental diseases, and learn the danger of over-excitement of the nervous system, especially in early life by too strong emotions, by prematurely tasking the intellectual powers, by the improper indulgence of the appetites and passions, and by the neglect of moral and religious education; and thus be able to advise parents and others whenever they are pursuing a course likely to lead to this disease.

In this way, physicians would do great good in individual cases, and also very much towards arresting those alarming *epidemic delusions* that occasionally prevail through the country; a lamentable instance of which is within the knowledge of all, known by the name of "Millerism," or the doctrine of the immediate destruction of the world. This has not only sent many to the grave and rendered a vast number insane, but predisposed, we apprehend, a large number, by the excitement and terror it has produced, to nervous diseases and to insanity hereafter.

Physicians are often called upon to give their testimony in relation to the mental condition of individuals, and sometimes in cases where not only property but *life* is at stake. In such cases, their responsibility is very great, and furnishes strong additional reasons for their applying themselves diligently to the study of mental diseases.

The treatise of Esquirol on insanity has recently been translated and published in this country in a cheap form. It is a valuable book, and worthy of a place in the library of every physician. The works of Prichard and Combe, on the same subject, have also been republished here, and are considered standard authorities.—*Report of A. Brigham, Superintendant of the New York State Lunatic Asylum.*

3. *Vascular Tumour at the Orifice of the Meatus Urinarius.*—A report of a case of this painful and troublesome affection, with some interesting remarks by Dr. LEVER, are contained in the *London Medical Gazette*, (Jan. 9th, 1846.)

This disease was first described by Sir C. M. Clarke, (*Diseases of Females*, p. 289.) The patient whose case is related by Dr. Lever, was a woman 67 years of age, who suffered from pain in the urethra, irritability of the bladder, constant inclination to void its contents, obstruction in the passage of the urine, and a sense of scalding during its passage; pain in the pelvis, coursing to the back, hips, and thighs, was also complained of; she was weak, dyspeptic, dispirited, and worn out for want of sleep. Application to various persons for relief was vainly tried, until the true nature of the case was detected at the Chelsea Dispensary. The growth at the time of her admission was of a florid red color, and granulated; it protruded through the meatus urinarius, with the margin of which it was unconnected, but had rather a broad and short stalk attaching it with the canal at the distance of about  $\frac{1}{4}$  of an inch. The slightest pressure caused the tumor to bleed, and the most gentle touch occasioned her exquisite pain. These growths appear to consist almost entirely of vessels and their connecting cellular tissue; they must, however, be abundantly supplied with nerves, from the exquisite suffering they occasion. Sometimes we meet with these growths in form and size like a small mulberry, having a slender stalk protruding through the meatus; sometimes these growths are no larger than a pea; in some cases they pass inwards along the urethra as far as, and even into the neck of the bladder, they seem to have their origin below the mucous membrane, and from the sub-mucous cellular tissue. In forming a diagnosis of these tumors, we must not mistake for them simple polypoid tumors, which are occasionally found arising from within the urethra, and protruding through the meatus; it is true, they dam the flow of urine, the water passes in a small and stifled stream; there may be great efforts to empty the bladder, and if the tumour be overlooked, the bladder may become thickened, and vesical irritation may ensue, but there is not that exquisite sensibility which is present where there are vascular growths, neither does the polypus so readily bleed. Again, malignant disease occasionally establishes itself at the orifice of the urethra, and this may exist without malignant disease of the uterus and vagina; here, also, there is difficulty in micturition, pain and scalding during the passage of the urine; there is occasional bleeding, and, conjoined with this, or in its absence, a mucous discharge. Occular examination will, however, readily detect the one from the other; in malignant disease there will be found a hardened lobulated tumour, or a cluster of lobulated tumours involving the urethra to a greater



or less degree, diminishing its capacity and almost closing its external opening. And if, in addition to this, malignant disease of the vagina be present, it will greatly assist the diagnosis. Frequently, too, the inguinal glands are enlarged, and the aspect of the patient is characteristic of malignant cachexy. There is another disease to which this part of the female urinary apparatus is liable, viz.: thickening of the cellular membrane around the urethra, with an enlarged and varicose state of the vessels, in which there is a dilated state of the blood-vessels with an hypertrophied condition of the cellular membrane; the urethra for an inch or more behind the meatus is frequently so dilated as to hold some few drops of urine, which may be pressed from it, and which create continued irritation. This state of parts is accompanied by constant uneasiness; there may be pain in sexual intercourse, although for the most part females labouring under this malady have their sexual desires exalted; the uneasiness is increased in the erect posture, there is frequent inclination to evacuate the bladder both by night and by day, a small quantity of urine flowing at a time, and the patient generally feels as if there were more fluid to pass. There is also a slight mucous discharge.

The finger passed into the vagina feels the urethra to be swollen and spongy, and if the disease have lasted for some time, there will be a part from which a few drops of urine may be pressed. When inspected, the part will be found of a dark red colour, and in some cases there is tenderness. Verucous tumours growing from the vestibulum cannot readily be mistaken for this disease; the former are insensible, their colour resembles that of the part from which they grow, their number varies, they may be solitary, in other instances there are many, but in all cases there is a mucous discharge.

“Let me advise you,” says Dr. L., “in every case in which you are consulted, when the patient makes complaint of symptoms similar to those detailed in this woman’s history, not to prescribe or give an opinion without the privilege of a tactile and visual examination. A neglect of these I have known lead the practitioner to commit sad mistakes, and involve himself in great disgrace. One instance I remember to have seen and treated, where the opinion given was, that there was calculus in the bladder. The patient as well as her friends was very properly alarmed; further advice was recommended; the case was investigated, no calculus was present, the sole disease being a vascular growth; this was removed, and the patient has had no return. I have on several occasions seen cases in which carcinoma uteri was suspected from the pain in micturition, the central pains attacking the pelvis and stretching to the back, hips, and down the thighs, and even this disease in some has been declared by the medical attendant to exist, although he had not availed himself of an internal

or visual examination. Be on your guard, therefore; in no case give a hasty or rash opinion; take care not to judge by mere symptoms, without employing the several means of physical diagnosis which in a previous lecture I have detailed.

“Let me now request your attention to the treatment employed in this case; the neck of the tumour was grasped by a pair of forceps, and by means of a pair of scissors the mucous membrane of the urethra involved with the tumour itself was removed. To effect this, the patient should be held firmly, for, if she move, the structure of the growth is so slender that the tumour will tear away; the forceps employed should be broad, not the common artery forceps, for they will lacerate, and not hold firmly. The excision of these growths is frequently accompanied by a pretty copious bleeding; but it is rarely necessary to tie any vessel; a compress applied to the part for a time usually arrests the hemorrhage; this, however, should be looked to, especially if the patient call at your house, and has any distance to go after the operation; some arg. nit. was applied freely to the part from which the tumour was removed. After the slough separated, the wound looked healthy; there was no pain in passing the urine, which flowed in a full stream for some days. On the 7th, the granulations were sprouting: I then directed the clerk carefully to touch the part with arg. nit. dissolved in nit. acid; this I have found to be more potent, and I think less painful (if I may judge by the expressions of the patients,) than the arg. nit.; its effect has been good, and our patient will soon leave the hospital. In those cases where the tumour is of the form of a cherry or mulberry, I find the better plan is to tie a piece of dentist’s silk waxed around the stalk, and snip off the tumour below; the silk should not be too thin, or it will cut through, neither should it be tied too tightly for the same reason. When the ligature comes away the stalk must be destroyed in the same way as in the case related; if the mucous membrane itself, and the submucous tissue, be not destroyed, the vascular tumour will most certainly reappear. The most troublesome forms of the complaint that we have to treat are those in which the tumour not only peeps through the meatus, but runs along the urethra, and in some instances passes into the cavity of the bladder; in such, the symptoms of irritation are intense, the stream of urine is as fine as a hair, and the suffering patient attempts to pass her water every three or five minutes. If the disease go on unrelieved, she wastes, becomes dispirited, dyspeptic, and may at last die, worn out by her long-continued and aggravated sufferings. In such cases we cannot remove by scissors or knife the vascular growth within the urethra; the first thing to be done, therefore, is to pass a small sound or catheter to establish a canal for the passage of the urine. However painful this must be, and



agonizing it most certainly is, it must be done; some arg. nit. must then be passed along the track of the urethra, and by its agency the vascular growth must be destroyed; the sound or catheter must be passed every day or every second day according to circumstances, and the arg. nit. repeated as soon as the slough occasioned by its use has separated; it is as well to let the patient keep the sound or bougie in the bladder for half an hour after the application of the caustic.

"This is certainly the most difficult form of the tumour to treat, and unless we succeed in effectually destroying the structure from which the tumour proceeds, we shall most certainly have it reappear. While this treatment is had recourse to, the patient must be closely watched, for I have seen cystitis occasioned more than once by the caustic applied in the manner I have recommended; but this will depend on the constitution and susceptibility of the patient, as well as upon the state of the mucous membrane of the bladder itself.

"Various other modes of treatment have been recommended—the application of the Tr. Iodinæ c. Pulv. Sabinæ, Pulv. Alum, &c. All I have tried, with some I have occasionally succeeded, with all I have many times failed; the plan I adopted in this woman's case is the one I believe to be in the majority of cases the most successful.

"When the cause of the continued irritation was removed, this patient's health and spirits quickly recovered, and at the present time she looks remarkably well and lively for a woman of 64."—*Am. Jour. of Med. Sci.*, for April.

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4. *Case of Catalepsy relieved by Music.*—By JAMES BLOODGOOD, M. D., of Cassapolis, Mich.

I was called in the evening of Sept. 5th, 1843, to see Dorcas Howard, aged 17, of small stature, and florid complexion, who was said to be in a fit. I found her with a full somewhat accelerated pulse, white tongue, costive bowels, flushed face, and completely cataleptic; the muscles of the eyelids, which I believe is unusual in this rare disease, being affected like all the other muscles of voluntary motion, and with this peculiarity, than when closed a slight impulse communicated to one of them, would cause both to open widely, in which state they would remain until an opposite impulse was given, when both would close simultaneously; but such a balance between the opposing muscles as would leave them partially open after the finger was removed, could not be obtained. Her attending physician, Dr. Allen, of Lagrange, where the case occurred, informed me that she laboured under menstrual suppression, and that the attack was preceded by severe headache. As no notes were taken, the previous treatment was forgotten. We applied cups to the temples, directed a blister to the spine, sinapisms to the extremities, cold applications to the head, and

a mixture of jalap and crem. tart. to be kept in the mouth, and which was swallowed involuntarily at intervals through the night.

6th, 9 o'clock. No operation or change in any respect. Having learned that she was extravagantly fond of dancing to the music of a violin, a performer on that instrument was procured, and requested to play one of her favourite tunes, which he did, with immediate and striking effect. Her breathing became hurried and deep, and for a short time she appeared to be making strenuous efforts, like one closely bound, to release herself; she then became quiet, with the exception of the fingers of the right hand, the motions of which corresponded so perfectly with those of the operator's left, as to induce the bystanders to attribute it to mesmerism, which was in high credit here at that time. When the music ceased, she opened her eyes and drank eagerly of water that was presented to her, though still apparently unable to move, and a repetition of the dose, not of water, but of music, restored her to perfect consciousness and volition. Under the operation of a blister to the epigastrium, which was tender, and means to restore the menstrual secretion, she soon recovered, and was subsequently married.

March 23, 1845. I was again requested to see her for a similar attack, which had continued five days without medical treatment, the fiddling having been relied on exclusively. The paroxysms were now of an hysterical character, commencing with convulsions, which became frightful if not arrested; but under the operation of the violin, which had been in use almost constantly by night and day, she passed in a few moments from the convulsive to the cataleptic state, and to consciousness as in the first attack, to relapse almost whenever the music ceased. Bleeding, cupping, blistering and cathartics relieved her in a day or two, and she remained as well as could be expected, with the exception of a threatened abortion, for which she was bled, until the 13th Sept. last, when she was delivered of a small healthy child after an easy labour, and has since remained in perfect health. The effect of music in this case was very remarkable. During her sickness she never had a paroxysm which music would not remove, or which was removed without it, though its effect was only temporary until depletory remedies had been used; and those remedies, however necessary they might be to secure a permanent recovery, were never alone sufficient to relieve a paroxysm.—*Ibid.*

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5. *Electrical Girl.*—M. ARAGO stated to the French Academy of Sciences, at their meeting on the 16th of Feb. last, that he had been called upon to witness some of the most singular phenomena which he had ever beheld, in the shape of



electric discharges of the most violent character, proceeding from the person of a young girl, aged thirteen, lately submitted to his inspection. This truly remarkable child overturns tables and chairs by merely touching them with her apron. When she sits down, the moment her feet touch the ground, the chair is upset, and she is suddenly propelled with considerable force. M. Arago said he had seen all these experiments, and had not been able to detect any trick. He begged the Academy would appoint a committee to investigate the matter.—*Med. Times*, Feb. 1846.

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6. *On the Exhibition of Ergot of Rye in lingering Labor, and the Conditions for its safe employment.*—[S. HALL DAVIS, M.D., Lecturer on Midwifery, and Physician to the Maternity Charity, considers that the following conditions should be present in order to render the exhibition of the medicine a safe proceeding:]

1. The soft parts should be lax, and free from heat.
2. With rare exceptions, the orifice of the uterus should be nearly fully dilated, and always dilateable.
3. The pelvic space should present the average dimensions.
4. In head presentations only; in breech and footling cases it is objectionable, on account of the very gradual descent of the presenting parts required for the subsequent passage of the head without risk to the cord. In transverse presentations it is obviously improper.
5. The head should be in an average good position, and not impacted.
6. The inertia of the womb should not have its source in plethora.
7. The absence of any source of irritation in any other organ capable of disturbing the parturient function by reflex action should first be ascertained, as of fæcal accumulation, urine in the bladder, or crude ingesta, which are to be met by their obvious indications of treatment.
8. The uterine inertia should be ascertained not to depend upon disturbance of the nervous functions, from loss of rest, or from depressing emotions.
9. There should not be present any cause of distension of the womb, beyond its power of acting to advantage, as by excessive quantity of liquor amnii or twins.
10. It would not be indicated when the inertia arises from constitutional weakness.
11. It is rarely advisable in primiparæ; much time and slower parturient action being required in these cases.

In short, this remedy being indicated on account of inertia of the womb, arising from the effect of previous distensions, there should be for its safe exhibition, a natural presentation,

a wide pelvis, soft parts relaxed, nothing wanting, in a word, but efficient action of the uterus to finish the labor.—*Ranking's Abstract*, Part II.

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7. *Delivery during Sleep.*—M. Schultze, of Spandow, was called, on the 25th of May, 1844, to a woman pregnant for the fourth time, at full term, and whom he found in so profound a sleep that he could not rouse her, either by shaking her, or by the vapors of ammonia, ether, &c., applied to the nostrils. On the third day of this unnatural sleep, the female was delivered, without awakening, of a male child, at full term, alive and well. On his visit of the morrow, M. Schultze found that his patient had been awake for a short time; she had recovered of herself, and as she had no recollection of what had happened, she appeared much surprised to find herself safely delivered.—*Ibid.*

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8. *Rapid Delivery without Previous Pains.*—Mr. J. B. Prowse in a letter to the "*Lancet*," relates the following case, as having an obvious bearing on the question of infanticide. "When a pupil, I was engaged by a poor woman to attend her during her accouchment; she was a native of Ireland, and a remarkably fine and well formed person. She had already borne two children. On the day of her delivery I was requested to call on her, for she thought her confinement was near at hand. Her attendants said she was in no pain, but that she appeared uneasy. I waited on her, and found her on the bed, smiling, and expressing a hope that she had not summoned me unnecessarily; but that as she never suffered much in labor, I would excuse her if she was wrong. On examination I was surprised to find the head of the child in the upper part of the vagina, and was puzzled to account for there having been no pains to lead to a suspicion of the real nature of the case. No sooner was my hand withdrawn, and my back turned to speak to the attendants, than there occurred one single effort of the uterus, and the child was in the world."—*Ibid.*

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9. *Obstetriciana.*—The title of this paper I use as a sort of *carte blanche*, to ramble where I please, without attempting to write a monograph. The artist who painted a sign with a horse on one side and a bear on the other, finding that the people could not tell the difference, wrote the name under each. This I shall not do with the *dramatis personæ* in these sketches, most of whom are beyond the reach of praise or blame. The "all-atoning power of the grave" generally silences malice itself. But to correct errors affecting health and life, to turn away occasionally from the realms of romance and its imaginary woes, to the realities of life; in a word, to consider the silent but courageous sufferings of woman, with



the aim of lessening evils not wholly removable, are objects of greater importance than the triumphs of Alexander, or the discoveries of Newton.

One of the most unpleasant features in country practice, originates in the great importunity among patients and their friends for delivering with celerity, requiring almost constant efforts, or seeming efforts for this end, otherwise the accoucheur may lose the confidence of all present, perhaps encounter their displeasure. In towns, thanks to the superior intelligence of the ladies, this is seldom the case. The doctor is not perpetually required in the bed-room, unless in certain emergencies. Where nothing is required he does nothing. This importunity leads to the untimely administration of ergot, which causes the death of many children. Many midwives, as ignorant of anatomy as the simple stargazer is of astronomy, desirous of expediting the labor, seize any salient point of the child, or of the organs of generation of the mother—they pull! On the 19th of January, 1832, I was called to see Mrs. M., who had been delivered three days previously by a midwife, who had pulled the external organs so as to cause mortification, from which she recovered with difficulty. Much of the vagina sloughed. Another midwife, in a breech case, pulled by the genitals of a male child, until they were torn off, causing its death in a few days after birth. On the 27th of Nov., 1832, I was called to see Mrs. R., 15 miles distant in the country, whom I had attended with success in a former labor. Mr. R., like some other farmers, kept a set of tools for making shoes in rainy weather. No sooner had he started for a doctor, than the midwife, in whose care he had left his lady, went to the shoemaker's bench and selected a large pair of pincers, with which she seized the skin of the child's head, which had presented in the usual manner; she tore open the vertex, and exposed the brain. When I arrived, after some hesitation, she brought the child from one corner of the room, where it had been covered up, but did not offer any explanation. The child lingered two days in great misery. I doubt whether this woman suffered any loss of practice by this murder. Indeed, the frequent vivisection of children, during childbirth, under pretences of various kinds, is very apt to enhance the reputation of the male practitioner. I could name ladies whose children have been dissected under the pretence that the pelvic bones are deformed, or too narrow, and who since have had large living children, and some of whom I have delivered with the greatest facility myself. For the honor of our profession, it is hoped that such cases are not often met with, though MM. Bayle and Gibert declare, that in France, especially in large cities, the most popular accoucheurs are those possessing the least merit and probity. (*Dict. de Méd., Art. Accoucheur.*)



In obstetrics, ignorance causes more mischief than dishonesty. A very amiable young woman, an only child, during her first labor, had a convulsion, while an old accoucheur of much reputation was attempting to deliver her. In order to prevent her from biting her tongue, her father held her teeth asunder, and, during her struggles, dislocated her jaw. After being attended by two aged accoucheurs and physicians, who gave her sundry medicines without dreaming of a luxation, I was called 37 days after the accident, and reduced her jaw at once. The displaced bones had formed bad ulcers within the cheeks; purges and slops (for of course she could not chew anything during 37 days) had reduced her strength and blooming appearance.

A midwife, very old and celebrated in her vicinity—more than a quarter of a century in practice—seven miles from town (Clarksburg, Virginia), requested my services for “a falling out of the womb,” as she called it, in her own person, of thirty years’ standing, which, as she related, often became dry, tender, swelled, and so painful as sometimes to cause fainting, and had recently kept her wholly in bed. I found a pudendal hernia, which had descended within the pelvis, opposite the acetabulum, distending the right labium, pushing the vagina to the opposite side, displacing the womb in that direction. The womb was high up, and in all respects natural—a portion of the vagina had descended, covering the intestine. A midwife, ignorant of the position, size, and properties of the womb! her own womb!

Another midwife of much practice (peace to her *manes*! I owe her no ill-will—with her dying breath, she bequeathed to me the obstetrical jurisdiction over her children and grandchildren), made it a rule to keep the patient awake the whole of the first night after an accouchement. She placed watchers at the bed-side to prevent sleep, in order to insure good luck to the mother and child!—a practice as cruel as dangerous, after the tumultuous actions, moral, mental, and physical, incidental to labor—actions followed by exhaustion, for which sleep is the best remedy—actions which lay the foundation of febrile movements, when the rest is disturbed. In such cases Sancho Panza’s benediction “on the inventor of sleep” is well merited, as all ought to know. Dr. Rigby, in his obstetrical lectures, says, that in Germany there is an old saying, that a *primipara* [she that is delivered of her first child] ought not to be allowed to sleep for the first twelve hours after her labor. These Germans have some odd notions in New Orleans. In several instances at my first visit after delivery, I have found the children bandaged like mummies from the feet up, including the arms, which are placed against the sides. The whole chest is so tight, that the child sucks with difficulty in some cases. The body is almost rigid from the great amount and



tightness of the bandages. I have never been able to induce the parents to remove them, until after a certain number of days. The theory is a very simple one—the child was crooked before birth, and requires straightening while its bones are soft. It has so happened that these children have done very well; they proved remarkably straight, active, and healthful, in a few cases which I have observed. Perhaps this was accidental.

Not long since, a German midwife, who had delivered a watchmaker's lady ten days before of a child, letting the placenta remain all that period, requested my aid—to bear the responsibility, I ought to say, of the woman's death. She had flooded from day to day; the arteries had ceased to beat in the extremities; she was nearly speechless—could scarcely swallow a little cordial; all the tissues, even the tongue and gums, were cold and blanched. A large placenta, nearly putrid, bathed in fetid blood, lay chiefly in the vagina—a portion extended within the *os tinæ*. It was instantly and easily removed. The woman had bled to death, from a want of *skill* in the midwife.

Those accoucheurs greatly err, in regard to the delivery of the placenta. who say,—leave all to nature. This midwife had left all to nature, simply because she did not know how to deliver the placenta, the cord of which had been broken. Retained *placenta*, when they fail to cause hemorrhages, sometimes bring on a fever like typhus. Retention, I am inclined to think, is occasioned by hour-glass contractions of the uterus oftner than is generally supposed. It is very surprising that Dr. Dewees never met, in his own practice, with a case of hour-glass contraction. I have met with a number. In two cases, the *placenta* were retained so long that the ladies, as it were, forced me to deliver, after I tried ergot, &c. In the first case I was completely puzzled, not thinking at the moment of such a condition of the uterus—I explored its inner surface and found nothing—but on pulling the cord, I found it led through a firm strictured aperture, which I overcame according to the rules laid down in such cases; in the next case I found an ossific union between the placenta and the womb—a firm, cancellated network, crushing like the shelled bird's egg,—the whole being separated slowly, was brought away as usual in the hand. Never have I witnessed any pain, or ill effects, from introducing the hand and wrist into the uterus upon such occasions. Retained *placenta* give rise to putrefactive odor of the most offensive kind: the sooner they can be got away the better for all parties.

Probably no town in the United States of equal population presents so much bad midwifery as New Orleans. Here, unlike other places, the evil of mal-practice falls not on the poor alone, but also on the rich, who often employ negresses that

happen to be lucky. The late Judge Waggaman, formerly of the United States Senate, informed me, that some years since an old, drunken negress, who was a midwife on his plantation, being called to a young black woman in her first labor, took a sharp case knife, and performed the Cæsarean section, taking out a living child! The mother recovered soon, and had no inconvenience of a permanent kind, except a slight incontinence of urine. If this lucky negress had performed this operation for a rational end, obstetrical surgeons might have trembled for their laurels, since, according to Merryman and Blundell, it has been performed only twenty-six times in the British Isles, and has proved fatal to the mothers with but two exceptions.

Nearly all the white midwives of New Orleans are from foreign countries, and, with a very few exceptions, uneducated in their profession; and, as the law is becoming a dead letter, so far as medical practice is concerned, the number is augmenting rapidly. The law has done everything necessary to correct the evils of quackery: it requires in all branches of medicine, and in both sexes, education, examination, and license. The Faculty, or the Medical Board, or both, are to be blamed. It is hoped that they may yet be galvanized into life before all is lost.

"Midwives in France," says Dr. Stewart, "after two year's study at the School of Delivery, and submitting to two satisfactory examinations, receive a diploma to practise, always, however, under certain restrictions, one of which is, that in no case, and under no circumstances whatever, shall they resort to delivery with instruments without the attendance of a physician. They amount, in all France, to 450, and practise almost exclusively among the lower classes of the community." (Hospit. Paris, 1843.) This number, divided into the whole population, will give an average of one midwife to every 75,000 inhabitants; while New Orleans has, probably, one for every thousand,—nineteen in twenty of whom, it is supposed, could not give an account of the bones of the pelvis, or its diameters; of the womb, or its annexæ; to say nothing of the general mechanism of parturition. In one respect the negresses are more safe than a vast majority of the German and Irish midwives—they will condescend to consult with doctors when difficulties arise, &c.

A few years ago, I was called to the mother of a considerable family, in labor with a monster more extraordinary in size and shape than perhaps any described by the late Geoffrey St. Hilaire—a monster in which it would be difficult to trace that unity of organization which this naturalist has shown to prevail even in the deviations of structure, designated as *lusus naturæ*—being three-legged, four-footed, double-spined, single-ribbed; in the trunk and viscera, single; in heads, necks, and



arms, double; massive, unyielding, and probably weighing twenty-five to thirty pounds. The woman bathed in cold sweat; breathing quick; hiccupping; pulse and vital forces failing. A demented, or, at least, a stupid midwife was pulling by one leg, which she had found. Although there was no hope from the Cæsarean section, or from any source whatever the monster was carefully dissected as far as I could reach—along its posterior spine, corresponding to the maternal spine, to the shoulders of the monster; its anterior spine, corresponding to the maternal symphysis pubis, was removed about half-way up; one arm was obtained with difficulty, but the mass, which lay beyond the reach of instruments, was immovable, and the woman was dying, and soon expired. The Cæsarean section was performed. The four arms, upper part of the trunk, two necks with large heads—the foreheads directly opposite each other, formed a mass like an inverted cone, the apex of which was formed by the presenting parts, or legs,—a mass much of which was quite above the superior strait of the pelvis.—B. Dowler, M. D., *N. Y. Jour. of Medicine*.

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10. *Fascination of Serpents*.—"The serpent's power to charm is regarded with scepticism by a great many, but there are very many authentic instances on record. In Williams' History of Vermont, a high authority, you will find some very interesting facts and comments on this subject; but a case has come within my own knowledge which is worthy of publication and may throw some light upon it. It has generally been believed to be the fascination of the serpent's eye. This may have some effect, for probably there is no living eye which has such piercing brilliancy and fascinating beauty; but I have seen little birds under the spell, fluttering about the snake and drawing gradually, like the infatuated votary of vice, to its deadly tempter. It cannot be this altogether. The snake at such times keeps its head vibrating, its forked tongue darting, and its tail trembling, while the whole body moves like that of a creeping caterpillar. The case alluded to above was related to me by Nehemiah Gallup, a revolutionary veteran who died about a year since, in Groton, Ct. He said that, in the revolutionary war, when attached to Fort Griswold, in that town, opposite to New London, he, in company with a number of other soldiers, went out on a hunting excursion, and finding a rattle snake, some of which are occasionally killed in that town, they fixed their bayonets, and forming a circle amused themselves by teasing him, till they all began to grow giddy and sick, when they killed him. They went on their way, thinking no more about it, but gradually grew worse, and on reaching their quarters were so seriously indisposed as to require medical advice; being troubled with excessive nausea at the stomach and vomiting. The physician

made particular inquiry in reference to their food, &c., for some time previous, when one of them accidentally told of their adventure with the snake. He at once replied that he was no longer at a loss to account for their sickness, and inquired if they perceived any peculiar odor at the time. They each recollected that they did. He replied, 'I have seen on the lines in the State of New York many instances of this kind. That snake was charming you with a stupefying effusion which they emit at pleasure, and had you not despatched him as you did, probably he would have despatched some of you.' He gave emetics and they recovered. 'Many years afterwards,' said Mr. Gallup, 'I went into a room where two rattle snakes were exhibited, and immediately on entering the room, perceived the same odor, though not so strong, and was so sick that I had to leave the room.' I have never seen this idea advanced by any one else. It seems more reasonable than the other and is worthy of consideration."—J. Comstock, in *Boston Medical and Surgical Journal*, May 6.

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11. *Nostrum Certifiers*.—One of the most successful measures adopted by the nostrum mongers to introduce their vile compounds to public notice, is, securing the names of influential persons to certify that extraordinary cures have been performed by the remedy. Thus we find scores of ministers, lawyers, judges, militia colonels, and, we regret to add, even *physicians*, lending their names and influence to such disreputable purposes. Believing it due to the profession that all of its regular members, who so far forget their own dignity and interests as to become the eulogizers of empirics, should be exposed, we have determined to publish, from time to time the names of all such that come under our notice. It is not improbable that, in some instances, the names of physicians may have been used without their consent, if so, we will take great pleasure in stating the fact when duly notified.

The following persons are reported in *Jayne's Medical Advertiser*, and other papers, as giving certificates in favor of the remedies designated:

M. L. Knapp, M. D., Prof. of Materia Medica, in Laporte University; late Physician to the Baltimore Dispensary, certifies in favor of *Jayne's Carminative*.

R. W. Williams, M. D., Modesttown, Va., Clergyman and Physician, certifies for *Jayne's Expectorant*.

Luther Brigham, M. D., Lowell, Mass., certifies for *Jayne's Expectorant*.

John Quigley, M. D., Sheperdstown, Va., certifies for *Jayne's Hair Tonic*.

S. S. Fitch, M. D., 172 Chestnut Street, Philadelphia, for the same.



Wm. Bacon, M. D., Woodstown, N. Y., certifies for *Jayne's Carminative*.

The following names are given as persons who "are willing to recommend" *Beckwith's Anti-Dyspeptic Pills*:

Dr. R. C. Bond, Halifax, N. C.	Dr. J. Manny, Beaufort, N. C.
Dr. Elijah Crosby, Indiana.	Dr. T. J. Johnson, Natchez, Miss.
Dr. J. Y. Young, Tenn.	Dr. E. G. Mygatt, Hannibal, N. Y.
Dr. Calvin Jones, Tenn.	Dr. W. R. Scott, Raleigh, N. C.
Dr. N. L. Smith, Raleigh, N. C.	

Dr. N. H. Edwards, Baltimore, certifies for *Spencer's Pills and Bitters*.

Dr. Mattison, Benton co., Ala., certifies for *Hull's Pills*.

Dr. Wm. B. Baker, Springfield, Ky., certifies for *Wistar's Balsam of Wild Cherry*.—*Western Lancet* for May.

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12. *Menstruation in an Infant*.—By W. H. Whitmore, Esq., Surgeon, Cheltenham. Among the family of Mrs. M. was a female child, who, from a few days after birth, had the catamenia regularly, at periods of three weeks and two or three days, until she had attained the age of four years and some months, when she died, after an illness of forty-eight hours. She was attended by Dr. Christie, who for more than a year before her decease, had satisfied himself of the fact. The detailed particulars were communicated to me by Dr. Christie, by whose permission I had an opportunity of witnessing the examination of the body.

When laid out for dissection, its great development was very striking—equalling that of a girl 10 or 11 years of age. The mammæ were unusually large, the mons veneris collapsed but well covered with hair, the labia pudendi sparingly so, though of unusual size for a child.

She was of fair complexion; and her hair, which was of a dark brown colour, was very plentiful. In the absence of her periodical ailments, she would enter into all the amusements of children of her own age; but when she was indisposed, she was exceedingly reserved, and would withdraw from all her playful occupations. When interrogated by familiar acquaintances as to her reason for absenting herself on these occasions from the amusements of other children, she would answer that she was indisposed; but when the same question was proposed to her by those with whom she was not intimate, she would merely blush, without making any reply. There were other young females in the same family, but in them the function referred to manifested no irregularity.—*Northern Journal of Medicine* for July, 1845, in *Medical Examiner*.

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13. *Obstetrics*.—*Case of Vaginal Pregnancy*.—On the 13th of January, 1839, the author of this communication visited a young woman, pregnant for the first time. He found her ex-

ceedingly debilitated, with a very feeble pulse, and scarcely able to articulate. For the last four months she had been constantly confined to her bed. About the fourth month of pregnancy, she had been attacked by strong bearing-down pains, and been relieved by an antispasmodic mixture. At this period a tumour made its appearance posteriorly in the vagina, and had since increased considerably in size. On examination, this tumour was found to be of the volume of a hat crown, protruding between the thighs of the patient, and dragging forward the rectum. One arm was projecting from an orifice below the vagina, and from this it was judged that the foetus was in a state of putrefaction. The arm was twisted off, and by the use of the hook, the foetus was readily extracted from its containing cavity, care having been taken to pull from below upwards towards the patient's abdomen. The placenta adhered very firmly to the vagina, and from the dread of hemorrhage no attempt was made to remove it. The tumour was now very much reduced in size; aromatic fomentations, with acidulated decoction of cinchona, internally, were prescribed. Two days afterwards the patient died. The foetus was of the male sex, and from seven to eight months old. In this case of extra-uterine pregnancy, the author assumes that the ovum had originally been introduced into the uterus, and had since, about the third or fourth month, dropped into the vagina, and there been developed to its ultimate volume.—*London Medical Times, in Ibid.*

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14. *Premature Interments.*—It is stated that the cases of premature interment in France, prevented by fortuitous circumstances, amount, since the year 1833, to 94. Of these, 35 persons awoke of themselves from their lethargy at the moment the funeral ceremony was about to commence; 13 recovered in consequence of the affectionate care of their families; 7 in consequence of the fall of the coffins in which they were inclosed; 9 owed their recovery to wounds inflicted by the needle in sewing their winding sheet; 5 to the sensation of suffocation they experienced in their coffin; 19 to their interment having been delayed by fortuitous circumstances; and 6 to their interment having been delayed in consequence of doubts having been entertained of their death.—*Prov. Med. and Surg. Jour. in Ibid.*



## TO READERS AND CORRESPONDENTS.

In order that we may supply future subscribers with all the numbers of this volume of the Journal, we wish to preserve as many as possible of those first published. Post Masters, with uncalled for numbers in their offices, and Physicians not wishing to subscribe, or to retain such as they have received, will, therefore, confer a favor by returning them to the publishers.

To our Contributor, Dr. STAHL, we tender our thanks for two interesting articles; one of which, the "Case of the bite of a Mad Dog, and its Treatment," we publish in this number, the other, on the use of "Sulphate of Quinine in the congestive modifications of Scarlet Fever and Measles," will appear in our next.

We have received: —

The Practice of Surgery, by JAMES MILLER, F. R. S. E., F. R. C. S. E., Professor of Surgery in the University of Edinburgh, Surgeon to the Royal Infirmary, Author of the Principles of Surgery, &c. &c. Philadelphia: Lea & Blanchard. 1846. pp. 496. (From the Publishers. For sale by Brautigam & Keen, Chicago.)

A Clinical Introduction to the Practice of Auscultation, and other modes of Physical Diagnosis, intended to simplify the study of the diseases of the Lungs and Heart, by H. M. HUGHES, M. D., Fellow of the Royal College of Physicians, Assistant Physician to Guy's Hospital, etc. Philadelphia: Lea & Blanchard, 1846. pp. 270. (From the Publishers. For sale by Brautigam & Keen, Chicago.)

Lectures on the Operations of Surgery, and on the diseases and accidents requiring operations, by ROBERT LISTON, Esq., F. R. S. Senior Surgeon to the University College Hospital, and Professor of Clinical Surgery in the Hospital. With numerous additions by Thomas D. Mutter, M.D., Professor of Surgery in Jefferson Medical College, &c. &c. &c. Philadelphia: Lea & Blanchard. 1846. pp. 565. (From the Publishers. For sale by Brautigam and Keen, Chicago.)

On Diseases of the Liver, by GEORGE BUDD, M.D., F. R. S., Professor of Medicine in King's College, London, and Fellow of Caius College, Cambridge, with colored plates and numerous wood cuts. Philadelphia: Lea & Blanchard. 1846. pp. 392. (From the Publishers. For sale by Brautigam & Keen, Chicago.)

Clinical Lectures on Surgery, delivered at St. George's Hospital by Sir BENJAMIN C. BRODIE, Bart., V. P. R. S., Sergeant-Surgeon to the Queen, Surgeon in Ordinary to his Royal Highness Prince Albert, etc. etc. etc. Philadelphia: Lea & Blanchard. 1846. pp. 352. (From the Publishers. For sale by Brautigam & Keen, Chicago.)

The Influence of Tropical Climates on European Constitutions, by JAMES JOHNSON, M. D., Physician to the late King, etc., and JAMES BARNALD MARTIN, Esq., late Presidency Surgeon, and Surgeon to the Native Hospital, Calcutta. From the Sixth London Edition, with notes by an American Physician. New York: Samuel S. & William Wood, 261 Pearl Street. 1846. pp. 624. (From the Publishers.)

A Manual of Chemistry, by RICHARD D. HOBBLIN, A. M., Oxon. Author of a Dictionary of Terms used in Medicine and the Collateral Sciences. New York: Samuel S. & William Wood, 261 Pearl Street 1846. pp. 335. (From the Publishers.)

Five Dissertations on Fever, by GEORGE FORDYCE, M. D., F. R. S., Fellow of the Royal College of Physicians, &c. &c. Second American Edition with an introduction. Philadelphia: Ed. Barrington & George D. Haskell. 1846. pp. 403. (From the Publishers.)

The above valuable works, for which we are much indebted to the Publishers, will hereafter receive due notice.

The Catalogue of Books on Medicine, Anatomy, Surgery, Midwifery, Chemistry, Agriculture, &c. &c. &c. for sale by Samuel S. & William Wood, 261, Pearl street, New York, gives the titles of a rare and most extensive assortment of works

upon these subjects, and is worthy the attention of all who may wish to purchase.

We have received also—

The Boston Medical and Surgical Journal to May 27th, (in exchange.)

The New York Journal of Medicine and the Collateral Sciences, for May. (In Exchange.)

The New York Medical & Surgical Reporter, for April and May. (In Exchange.)

The Medical Examiner to May, with back Numbers. (In Exchange.)

The Bulletin of Medical Science for May. (In Exchange.)

Southern Medical & Surgical Journal for May. (In Exchange.)

The Western Lancet & Medical Library enlarged and improved. (In Exchange.)

The Western Journal of Medicine & Surgery for May. (In Exchange.)

The Missouri Medical & Surgical Journal for April. (In Exchange.)

The Buffalo Medical Journal for April. (In Exchange.)

Third Annual Report of the Managers of the State Lunatic Asylum, (New York) made to the Legislature, January 23d, 1846.

Twenty-fifth Annual Report of the Bloomingdale Asylum for the Insane, for the year 1845.

An Introductory Lecture delivered by G. S. BEDFORD, A. M., M. D., Professor of Midwifery in the New York University.

Catalogue of the Faculty and Students of the Medical Department of the University of the State of Missouri, for 1845-6.

Whole No. Students, 92. Graduates 29.

Also, Catalogue of the Trustees, Officers and Students of Indiana Medical College, (Medical Department of Laporte University.)

Whole No. of Students, 81, viz; Students in Chemistry, 10—Practitioners in and around Laporte, 5—Druggists, 2—Law Student 1=18—18 from 81 leaves 63 Medical Students—of these, 18 are set down as pupils of Prof. Meeker, and 17 as those of Prof. Richards, 18 & 17=35,—35 from 63 leaves 28 for the rest of the Faculty and the Profession at large.

#### CONTRIBUTORS TO THE ILLINOIS & INDIANA MED. & SURG. JOUR.

A. H. Howland, M. D., Ottawa, Ill.

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# ILLINOIS AND INDIANA MEDICAL AND SURGICAL JOURNAL.

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## PART I.—ORIGINAL COMMUNICATIONS.

### ARTICLE I.

*Sulphate of Quinia in the Congestive Modifications of Scarlet Fever and Measles.* By DANIEL STAHL, M. D., of Quincy, Illinois.

It has long been questioned, whether medicine, in the true sense of the word, is a *Science* or not, and however many there may be, that claim for it a place in the circle of Sciences, it is to my mind doubtful whether it deserves it. As long as we have not incontrovertible data to go upon; as long as we cannot with mathematical certainty explain the phenomena of life; as long, I say, as we do not proceed from *positive principles*, so long can it not claim a place in the company of Sciences. It is, at least, entitled to the appellation of an *Experimental Science*. It draws from experience, and refers scattered facts and phenomena, to general laws. But as long as it has to deduce, or discover these hidden laws from appreciable phenomena, so long is it encumbered with hypotheses, which we all know are very unsafe until the mass of phenomena, satisfactorily explained thereby, become so numerous that the explanation has ceased to be an hypothesis. While, however, we thus support one hypothesis after another, and while by the multiplicity of observations and experiments, we discover, that that, which was but yesterday an hypothesis, to be to-day considered a law of nature, we at the same time discover new laws, and throw new light upon a department of nature the most hidden in its operations, and the most bene-

ficial in its practical applications. Whoever, therefore, multiplies the mass of isolated facts, whoever communicates his experience and observations, especially if new, contributes to the improvement of medicine and becomes a benefactor to his race. Every Physician of many years practice will admit, that the character of diseases changes, that remedies which he in former years administered with success, are now either inert or injurious, and that therefore, he has to look about for a new remedy, or apply an old remedy in a new disease. If he has the good fortune to hit upon a remedy, which answers the purpose, he ought to let it be known, in order to afford those who have the talents, and opportunities, means to answer the whys and wherefores. The same is applicable to discoveries of new remedies. These remarks may probably subject me to the reproach, that I put our profession too low in respect to its claims as a science; be it so: I will not defend myself, but only ask those who thus reproach me; "Can you in every case, when you administer a dose of calomel, say, what are the pathological changes you wish to remove, and what is, in this case, the *modus operandi* of the calomel? Do you never administer calomel or any other remedy for no other reason, but because it had a salutary effect in a similar case? And do you not call this, in your inmost thoughts empiricism?"

In medicine we want no idle words, nor talk for talking's sake; we want facts, true observations, and laws and principles deduced from them. The Homoeopathist will prove by the handsomest sophistry in the world, that a grain of *Balladonna* diluted and shaken 20 times up and down, is enough to destroy a whole community, yet we all know that experience proves the contrary. Dr. Franklin, in an answer to the enquiry of a wag, laid down a principle, that we as medical men ought to pursue. A wag, in Paris I think, asked him the reason why a piece of solid iron, made in the shape of a fish, would swim in water; the sagacious Doctor answered him, "Let me see a solid piece of iron thus shaped, swim, and afterwards I will endeavor to find an explanation." Let therefore every new fact, every new observation be recorded and give thereby those who have the talents, materials for a systematic arrangement.

These preliminary remarks I have intended not only as an



apology for troubling my readers with the account of the effects of so well known a medicinal agent as Quinine, but also as an argument to the members of our profession to prove, that we, as private practitioners, can benefit mankind as much, if not more, by communicating isolated facts, as by searching constantly for theories and hypotheses.

*Sulphate of Quinia* has been looked upon as a *tonic*, and until within a very recent date, no practitioner would venture to administer it in any case during febrile excitement, or when *sordes* in the *primæ viæ* were suspected to be present, except in *cases of great emergency*. But these few cases of emergency, in which it has been given *successfully*, teach a lesson that should not be lost sight of. They have shown us, that Quinine is not a mere tonic, in the common acceptance of the term, that it does not excite the vascular system, but that it is a *nervine* in the strictest sense of the word, that it merely gives tone and energy to the nerves if prostrated, and that it thereby assuages the undue excitement, consequent, not upon an hyperdynamic, but more upon an adynamic condition of the system, and consisting of, an effort of the weakened powers, to regulate the vital functions, which for this purpose require more energy of the nerves, than they in such cases possess. Such a condition it is, which I consider, constitutes what we improperly call a *Congestive State* or *Congestive Fever*; and such is the condition, with which the practitioner in this country has often to battle, in autumnal bilious fever, pneumonia notha, (vulgarly called winter fever,) scarlet fever, and measles. Formerly, physicians were led astray in the treatment of congestive fever, and judging from the term "congestion," mistook the pathology of this modification of diseases, particularly of bilious fever, and in accordance with the advice of Armstrong, bled profusely, and frequently, no doubt, bled their patients to death. Happily has the introduction of inductive reasoning into our practice convinced us of the error of our predecessors, in this respect; we have found that depletion cannot remove this condition which is called congestion, but that a remedy which has been designated as a tonic (I mean the Quinine,) not only effects this, but also, and at the same time, instead of accelerating, diminishes the frequency of the pulse.

I never have seen many cases of the congestive modification

of *Scarlet fever*, such as are described in books, particularly such as Eberle describes; but in the epidemic which prevailed here last fall and last winter, I had occasion to see many cases attended with "oppression, deep seated pain and a sense of weight in the head, fullness and great muscular prostration," with "quick, short respiration." In these cases the pulse was not "slow, irregular and weak," but quick, soft and regular. In such cases I gave the Quinine in large and often repeated doses, with the happiest effects. If the skin was pale or livid, I gave the Quinine with capsicum; but as the most of these cases in our last epidemic exhibited only oppression, prostration, quick pulse, and red and warm skin, I gave the quinine alone.

I have obtained the most remarkable and prompt effect from Quinine, in the *congestive modification of measles*, the most prominent features of which are *unusually quick, short and anxious respiration*, and *quick pulse*. I will relate the history of three cases of this kind, which I have attended, and as I do it principally from memory, I hope for the reader's indulgence for the imperfections of the pictures I shall present.

CASE I. Mary Carter, aged 12, a healthy girl of rather a nervous temperament, was taken on the 10th of March, 1846, with the initiatory symptoms of measles, such as coryza, inflamed conjunctiva, cough, &c., for which I ordered my usual prescription in such cases, an emetic of Ipecacuanha. The next day the measles made their appearance in the usual way, and with the usual symptoms. In the night, from the 13th to the 14th, the parents discovered that she drank more than common, and had great difficulty of breathing. In the morning of March 14th, I was called, and found her, as far as I can recollect, with the following symptoms: measles over the whole body, red eyes, *respiration very quick, short and laborious*, so that she had to be propped in bed, and complained constantly of want of air; the chest was heaving, the nostrils dilated, and the alæ nasi playing, and the whole appearance presented the picture of a dreadful struggle with death. Patient withal was perfectly conscious of this, and spoke, with great difficulty, of the imminent danger in which she was placed. Much thirst; *pulse 140 in a minute*, regular, soft, but not very weak, nor small; constipation; skin warm. There was great oppression in the scrobiculus cordis, so that deep inspiration was impossible.



I prescribed a large dose of calomel and gr. ii of quinine, with  $\frac{1}{2}$  gr. of opium every  $\frac{3}{4}$  to  $\frac{1}{2}$  1 hours. With every dose of these powders, the breathing improved and pulse became slower.

*March 15th.* Bowels moved by means of injectives. Breathing easier, and pulse 120 in a minute; can lay lower with her head. Continued with the above powders every 1 $\frac{1}{2}$  hour, and, as she became better, every 2 hours.

*March 16th.* Drinks less, slept some, pulse slower. Continued the powders every 2 to 3 hours. Under this treatment in conjunction with the prescription of some adjuvants, such as mustard draughts, blisters to the chest, warm applications and cathartics, my patient entirely recovered.

CASE II. *March 3d.* Fred. Beck, aged 4, a strong, healthy, German boy, who had never been seriously ill, except an attack of scarlet fever, was taken in the usual way with the measles, which in the usual time made their appearance on the skin, and extended from the face downwards, over the whole body. In the night, from the 2d to the 3d of March, his parents discovered some difficulty of breathing. In the morning I was called and found that the eruption maintained the usual (normal) color, *but the breathing was so short and quick, and withal so laborious*, that it alarmed me. All the muscles contributing to the act of respiration were in full play, and the lower jaw was at each inspiration, drawn down. The pulse was rather soft, small, and so quick that I could hardly count it. I gave him immediately *quinine in grain doses* every hour, and in 24 hours from the time I was first called, I considered him out of danger.

CASE III. *March 31st.* T. Blanke, 7 years of age, who has always enjoyed excellent health, of a stout, robust frame, was taken in the usual way with the measles, which in due course of time made their appearance. On the 31st of March I was called; I found his skin very hot, exanthema partly disappeared, severe hard cough, *breathing short, quick and laborious, pulse very quick and full*, but not hard, thirst excessive, constipation. Under any other circumstances, and had I not seen the above two cases, I should have depleted this boy, but fearing venesection, I ordered a cathartic, and a solution of tart. antim. in nauseating doses. The next day the fever had diminished, but the pulse was, if anything, quicker than

before, the breathing worse, and the cough not much better. I now commenced the use of quinine, by which he improved so much that after he had taken it about 20 hours, I gave him some of Coxe's Hive Syrup, and soon dismissed him cured.

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ARTICLE II.

*The remote and proximate cause of Bilious Fevers of the South and West, considered in the light of Liebig's Theory of Animal Heat.* By SAMUEL G. ARMOR, M. D., of Rockford, Ill.

The science of Medicine should be strictly eclectic. Its object should be to glean well established facts from every department of Nature. It should be the great aim of the intelligent physician, therefore, to divest the sciences of their isolated character. By studying them in this manner, we lose their real end and object, and are apt to forget the great truth of the unity of all science. If the question were propounded as to the true object of science, the answer would be very indefinite, and, doubtless, by no means uniform or consistent; each would assign the special end of the one he cultivates, without making a single deduction from the progress of his speciality, to that of other specialities. Having studied the elements of the sciences in themselves, we should study them in their relations, and this must end in establishing the most intimate ties between the most distant sections of the vast net work of the sciences.

The science of Medicine, practically considered, is perhaps more directly and largely indebted to modern improvements in Chemical science, than all others combined. Chemical researches into the composition of the fluids and solids of the animal body, and comparative examinations of them under the differences of age, sex, climate, mode of life, and the various modifications of disease, have thrown great light both on the healthy and disordered actions of our frame; and by discovering what particular ingredients existed in undue proportion, they have also suggested the means of relief to be often the internal administration of suitable chemical remedies. The views, for instance, respecting the nature and treatment of calculus diseases, are truly chemical; and for the theory of diabetes we are also indebted to Chemistry. In the de-



partment of Toxicology we are also largely indebted to the progress of this science. The specification and therapeutical application of remedies, the knowledge of the action of the different kinds of poisons, and of their antidotes, are learned from chemical research and experiments. The object of this paper is to present some thoughts founded on the acknowledged principles of Chemical science, in relation to the operation of that intangible, undefined and undefinable something, called "Miasma," together with the rationale of the therapeutic action of Quinine as its antidote. The suggestions I have to make are founded principally on the research and observation of that distinguished and able chemist, Prof. Liebig, and so far as relates to his theory of Animal Heat, I claim no originality. His elaborate and ingenious argument on this long mooted question may be briefly summed up in this proposition: "The combination of a combustible substance with oxygen is, under all circumstances, the only source of animal heat, and the combination of oxygen with carbon is always accompanied by the disengagement of heat." This being assented to, it follows that the amount of oxygen consumed bears a relation, from necessity, to the amount of heat liberated, and this depends upon the temperature of the surrounding medium. Nature requires that the quantity of inspired oxygen shall increase or diminish in proportion to the temperature of the external air. The capability of this physiological adaption to all climates, appears to be peculiar to Man, and it is a wise provision of nature, that he has been endowed with this power. It enables him to pass into all the climates of the earth; to reside beneath the pole or the equator; to live under a burning sky or on an ice-bound soil; and to inhabit regions where the most hardy animals can scarcely exist. But this change of climate and season are necessarily connected with corresponding changes in the action of vital force, and this depends upon the laws which govern the production of animal heat. The blood of the inhabitants north of the Arctic Circle has a temperature as high as the inhabitants of the Torrid Zone; in the one case the temperature is nearly equal to that of the blood, in the other from  $75^{\circ}$  to  $90^{\circ}$  lower. The loss of heat from external temperature, in the one case, must be supplied by an increased quantity of inspired oxygen, and this increased proportion of oxygen, found in a dense and cold atmosphere,

must have a combustible substance with which to unite. It follows, then, that the quantity of oxygen must be increased in the same ratio with combustible matters. The appetites, practices, and customs of tribes and nations of different climates, throw much light upon this subject. If we should take exercise in a cold atmosphere in winter, or go naked like savages, we would require food containing carbon and hydrogen in the same increased ratio, and could eat with impunity, (as is the case with northern tribes,) large quantities of flesh, tallow, oil, &c. But let us take another and a physiological view of this question. An Englishman accustomed to good dinners goes South—finds his appetite fails him—uses stimulating condiments to excite it. But the temperature of the atmosphere does not require the consumption of a large quantity of oxygen, and nature, true to her established laws, has not furnished a large amount. The result is, that a large portion of the carbon thus introduced into the system, is unconsumed. Hence the pathological effects. Compounds, rich in carbon, appear in the urine, which, in consequence, acquires a brown color. It is also detected in the peculiar odor of the perspiration, which, says Prof. Liebig, contains much carbon. The dark and tawny color of the skin is also referable to the operation of this law of Animal Chemistry. Have we not, then, many facts drawn from the laws of Chemical relation which throw much light on diseased action? And how beautifully those laws harmonize with the general economy of Nature? If the same quantity of oxygen was consumed in the warm summer months, when the surrounding medium did not rapidly liberate the heat thus generated, the result would be excessive febrile excitement, and the destruction of our organism by the action of oxygen. The practical inference from this is, that in warm seasons of the year, or in a southern climate, we should use sparingly of carbonized articles of diet. To use large quantities of flesh, oil, and fatty substances, when the surrounding medium does not require the production of so much animal heat, and when in fact, nature has not provided, in the same proportion, a counteracting or consuming agent, would be, not to create a proportional amount of animal heat, because that is governed by the amount of oxygen consumed, but to increase in undue proportion, one of the chemical ingredients of our physical structure.



What are the pathological effects of this excess of non-azotized matter? And how does it operate in the production of fever? These are interesting questions to the Southern and Western practitioner, and deserve our closest investigation.

Prof. Liebig thinks he has settled the proposition in his "Animal Chemistry," that the Liver has a remarkable affinity for carbonaceous substances. He states that in inflammation of the liver, we find the blood loaded with fat and oil. This observation is corroborated by Dr. Stevens, to whom we are greatly indebted for much careful analytic investigation. Assuming this to be a fact, does this condition of the circulating mass give rise to the inflammatory action of the liver? or does this deterioration of the blood, and consequent disturbance of functional harmony, arise from perverted glandular action, growing out of a primary lesion of nervous energy? Here the long mooted question of fluidism and solidism—difficult to settle because from their direct and intimate connection—we cannot conceive of one being affected without implicating the other,—again presents itself. While we shall indulge in a little interrogative speculation, as to primary impression, we shall not attempt to separate this direct physiological connection.

Again, Liebig asserts it, as a universal fact, that the nitrogenized constituents of vegetable food have a composition identical with that of the constituents of the blood. He also asserts it as a well established truth, that when animals are fattened on food destitute of nitrogen, certain parts of their structure only increase in size. He instituted experiments on animals, and noted the result. Examples of geese are given, fattened in the method above alluded to. The result was, enlargement of the liver to three or four times its natural size, and a structure soft and spongy. From these facts we present the *apriori* argument, that an excess of carbon lies at the foundation of Hepatic diseases.

But the question may be asked here, why is it that Bilious and Intermittent fevers prevail more in some localities than others, in the same latitude and in the same season of the year? Our answer to this interrogatory is, 1st. In the warm summer months a predisposition to those diseases exists in any location. 2d. Every supposed favorable condition for the generation of Miasma is also favorable for the generation

of carbonic acid gas. Chemical analysis establishes the fact that carbon enters very largely into the constituents of all black vegetable loam. This character of soil is generally found in rich river bottoms, or in low marshy countries where those types of fever prevail. The decomposition of vegetable matter also furnishes an additional source of this element. We have then, 1st. The predisposition. 2d. The soil and decay of vegetable matter impregnating the atmosphere, which we are constantly inhaling, with a double proportion of the very same agent which develops the predisposition. Add to these exciting causes, such as sudden changes of the temperature, operating on an already relaxed and debilitated condition of the animal frame, want of healthy elimination and depuration, and a consequent interruption of the harmony of function, so essential to a normal condition of the fluids and solids of the body, and you have our answer to the interrogatory.

Another interesting question presents itself in connection with this subject. How do the preparations of Cinchona, operate in arresting a paroxysm of fever? Do they operate primarily on the blood by changing its chemical relations, which have been disturbed by the introduction of a foreign body? or on the Nervous Centres, and through them on the fluids of the body? The satisfactory solution of this question, it will be at once perceived, depends much on the settlement of that other question as to *primary* impression. If we subscribe to the clearly elaborated views of Dr. Stevens, and other able pathologists of the present day, that "in those fevers which arise from marsh miasmata, or from contagion, a diseased condition of the blood is the first which occurs in the train of symptoms, and the immediate cause of those which follow," then it is rational to suppose that our curative agents operate directly on this proximate cause. This view appears to be sustained also by the fact, that quinine is a very highly nitrogenized vegetable principle, having a composition identical with the constituents of healthy blood, and thereby furnishing the direct antidote to this perverted circulating mass. We might sustain this theory by much plausible argument. We might reasonably contend that the temperature, the vital activity, the renovation of all the organs are constantly maintained at the expense of arterial blood; that a normal condi-



tion of the solids, depends on the natural response of every surface, of every organ, to its natural, its healthy, and its appropriate stimuli. If the blood, therefore, be the fountain of life from which all the organs and tissues of the body are immediately formed, it follows that whatever deranges the nutritive process, by which the healthy condition of vital action is maintained, will produce derangement of function, abnormal action and disease. In its healthy state, blood contains definite quantities of oxygen, hydrogen, azote and carbon. An increased or diminished proportion of any of these constituents gives rise to morbid states of the vital current. Its vitality being diminished, every organ and every fibre suffers. The brain and nervous system, no longer supplied with good arterial blood, fail to perform their healthy functions. Hence the loss of balance between healthy nervous and vascular excitement. The harmony and order of the Physiological state, is rapidly succeeded by the "horrible discord" of the Pathological. A shattered and depressed condition of the nervous system exists; respiration is diminished; temperature of the body is reduced; there is loss of sensation, impaired memory, head ache, loss of appetite, nausea &c., followed by reaction, with all the characteristics of fever.

If carbonized substances, therefore, such as fat, oil, tallow, caffeine, asparagine, &c., as well as all non-azotized articles of food, are, as expressed by Prof. Liebig, "food for the liver," furnishing the elements by the presence of which that organ is enabled to perform its functions, may we not with equal justness conclude, that the brain and nervous matter are formed in a manner similar to that in which bile is produced, but requiring a different element. If the propositions be true, as set forth by this learned author, is it not a reasonable conclusion, that a change is effected in the composition and quality of the constituents of the blood, by the introduction of a highly nitrogenized compound, and that quinine operates as a direct stimulant or sustenent to the brain and nervous system, by entering the circulation, changing its chemical relations, and becoming converted into constituents of brain and nervous matter, and into organs of vital energy, from which the organic motions of the body derive their origin? If it be an undeniable truth, as alleged, that the substance of the brain and nerves, is drawn from the elements of nitrogenized vegetable food, and that a

depressed and perverted condition of nervous energy, grows out of a vitiated circulation, is there any thing absurd in the opinion that other constituents of vegetables, containing the chemical elements of medulary and nervous matter, may be applied to the same purpose?

In reviewing some old interrogatories, and raising some new ones, do not accuse me of wishing to deal in vain and idle speculations. I am in search of *facts*. A junior in my profession, I submit these suggestions to the criticism of my seniors. If I err, attribute it to my zeal to abandon speculation and hypothesis, for facts adduced from experiment and observation. This is the glory of Medical Science: the medical man is the man of induction, having opinions based on a broad range of facts and observation.

In presenting these views, I have no theory to sustain. To the *Chemical School* of Physiology we are largely indebted for many interesting facts in our Science; yet to the very first objection urged by the school of *Vitalism*, that organic and inorganic nature are distinct in many of their most essential attributes, no one can refuse his assent. We would not therefore, wrap up our Art in a kind of learned mystery, on the one hand, nor submit man, as charged by Prof. Paine, to the same laws which govern a stone, on the other. In the Investigation of Nature's laws, the man of Science should strive, with Lord Bacon, "to make wonders plain, not plain things wonders." What a noble rule for Physicians! By collecting facts they may serve to explain the train of phenomena, and devise a Theory which will develop the rationale of our Western fevers. Every fact, every well attested observation, will give us motives for searching into analogies, suggest new modes of observation and experiment, and may serve as a scaffold for the erection of general laws. Our science rests on many interesting and valuable facts; yet it must be confessed that our knowledge in the line of inquiry here presented, when compared with that of which we are ignorant, is extremely defective. An ample harvest for future laborers, yet presents itself. Let us strive to enrich our profession by gathering facts in this field of research.



## ARTICLE III.

*Amputation of the Superior Maxillary, Malar and Palate bones, for Disease of the Antrum. Recovery.* By DANIEL BRAINARD, M. D., Professor of Surgery in the Rush Med. Col.

On the 16th of May, 1846, I was requested by my friend, Dr. Philip Maxwell, of this place, to consult with him in the case of Mary Derry, wife of Philip Derry, of Aux Plaines, Ill. She is 40 years of age, of good constitution, and is not subject to any hereditary predisposition to disease.

Present state. Upon the left side of the face, there exists a tumor of the size of an orange, extending from the orbit to the angle of the mouth, and from the nose to the outer part of the cheek. It also projects downward into the mouth, effacing the alveolar process and projecting the cheek, but not encroaching upon the soft palate or extending to the median line of the mouth. Its surface is red and highly vascular, it is painful particularly beneath the orbit, is firm, but slightly and obscurely elastic.

History. Near four years since, Mrs. Derry began to be afflicted with "gatherings in her head," when, after having pain in the left side of the face and head three or four days, there took place a free discharge from the corresponding nostril, and the pain was relieved. This continued to recur from time to time, until the autumn of 1845, when the discharge ceased to recur, the pain, however, continuing and becoming more severe.

In Jan., 1846, she for the first time perceived a swelling of the cheek, and applying to a physician, he removed one or two teeth which were loose, telling the patient, she had an "ulcer tooth." From Jan. to the present time, the tumefaction and pain have increased, so that the patient obtained no rest without the use of anodynes. Since the first occurrence of the pain in her head, her general health remained pretty good until the autumn of 1845, when the menses ceased, and soon after, the pain and want of rest, induced considerable emaciation. All the principal functions of the system with the exception of those just mentioned, are performed with considerable regularity.

Operation. This was performed on the morning of the 23d of May, with the assistance of Drs. Maxwell & Herrick,

and in presence of Drs. Kimberly, Boone, Dyer, and several other physicians and medical students, as follows: The patient was placed upon a bed on her back, with the head raised. An incision was then made from the internal angle of the eye to the mouth, dividing the left half of the upper lip at its middle. Another was carried from the upper end of this, in a curve, to the external angle of the eye, and from this point to the eminence of the zygomatic arch. The integuments were dissected up so as to form a broad flap and entirely expose the tumor. This dissection was somewhat difficult, and required great care from the thinning of the skin, which had taken place over the most prominent part of the diseased structure. The lip and ala of the nose were then dissected up, and the incisor tooth next the median line extracted. The next part of the operation consisted in detaching the diseased mass. With a common narrow saw of the amputating case, introduced into the nostril, the alveolar and palatine processes of the superior maxillary bone, and the palate portion of the palate bone, were easily divided, as far back as the soft palate. The nasal process of the maxillary, the connexions of the malar bone to the external angular process of the os frontis, and zygomatic process of the temporal bone, were then divided with the bone scissors, leaving only a posterior bony attachment. To divide this a chisel about one inch wide was placed in the temporal fossa, and with a couple of blows of the hammer it was entirely loosened. It only remained to divide the soft tissues below the orbit and the vail of the palate, at its attachment to the bone, and the whole mass was removed.

Immediately a sponge dipped in cold water was thrust into the wound to arrest the hemorrhage, which was very abundant from a great number of small vessels. In a few minutes this was arrested, with the exception of that from the division of the internal maxillary artery at the bottom of the wound; this required the actual cautery. No ligatures were used. On examining the wound the pterygoid processes were found exposed, and no traces of the diseased tissue remaining. The flap was then brought in place, and retained by about a dozen stitches of interrupted suture. No other dressings were applied, lest by their pressure they should interrupt the circulation in the flap.



The time occupied in removing the tumor, was, from the commencement of the operation, not over from five to ten minutes. It was, however a severe one, and the patient, from the shock and loss of blood, was considerably depressed. Opium was freely given until pain and restlessness were allayed. This was required to be repeated for four days, in order to procure sleep at night. No unfavorable symptoms occurred; the flap adhered throughout by the first intention, and on the fifth day after the operation the menses returned. From this time there was no pain, her appetite and digestion were good, and at the end of a week from the operation, she was able to sit in a chair, walk about the house, and wash the wound herself. Healthy suppuration and granulation took place and on the 15th of June she rode home, about 12 miles, without difficulty, and I saw her there on the 16th, extremely comfortable in every respect.

On laying open the tumor it was found to be composed of a firm fibrous mass nearly as dense as scirrhus in its crude state. There were several small cavities in it, containing healthy pus, but no trace of bony structure. On the outside it was found to be circumscribed on every side by healthy structures, showing that the whole of the diseased mass was removed. A microscopical examination of the tissue showed it to contain "granules and nucleated cells," like those described and figured as characteristic of malignant growths. Under these circumstances, the return of the disease is of course greatly to be feared. The patient has been placed upon such a regimen as to guard as much as possible against this, and we may at least reasonably hope that its return may thus be so far retarded as to give a respite of several years, from so dreadful a malady.

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#### ARTICLE IV.

##### *Case of Mental Excitement allayed by Music.*

Mr. S——, a young man 17 years of age, of a strongly marked nervous temperament, and rather delicate constitution, had a severe attack of remittent fever attended with cerebral excitement, and followed by nervousness and general debility.

During convalescence, being fond of books, he commenced reading some poetical work, with which he became so much interested, as to continue its perusal six or eight hours, with little or no intermission. Nervous irritability and general febrile excitement, were, as might have been expected, almost the immediate consequences of this imprudent mental effort, and in a few hours after, a state of delirium, with symptoms very similar in every respect to mania à potu, rendered the case truly alarming.

The symptoms indicated, as it seemed, the prompt use of narcotics. Morphine was therefore given in doses gradually increased till at the end of 48 hours, 3 gr. at a time, with strong laudanum injections had been administered. This treatment seeming to have little or no effect, was abandoned, and other means, such as baths, counter irritants, stimulants, &c. &c., resorted to, with but slight amelioration of the alarming symptoms.

The patient had now continued in this state three days and nights, without sleep, and with little or no food. Pulse much of the time 120. Countenance anxious and sunken, presenting every appearance in fact, of approaching final prostration.

Of the means above mentioned, the administration of brandy, in often repeated and large doses, seemed to act most favorably and effectually. Under its use the pulse came down to about 100. The patient also became more quiet, and manifested a slight disposition to sleep.

At this time, it was suggested by the father, that his son had always manifested a remarkable fondness for music, and that when a child, sleep had often been produced by it.

A violin player was accordingly sent for, and the effect of his art tested upon the patient, with the most remarkable and immediate favorable effects. The nervous excitement began to abate at the sound of the fiddle, and in a very short time, the patient was in a sound sleep, from which he awoke in an hour or two much refreshed and nearly rational.

By continuing the brandy, and when nervous excitement began to manifest itself, an occasional quietus from the fiddle, this singular state of mental excitement was, in a few days, entirely and permanently subdued.

W. B. H.



## PART II.—REVIEW.

## ARTICLE V.

*On Diseases of the Liver.* By GEORGE BUDD, M.D., F.R.S., Professor of Medicine in King's College, London, and Fellow of Caius College, Cambridge. With colored plates and numerous woodcuts. Philadelphia: Lea & Blanchard. 1849. pp. 392. (From the Publishers.)

Diseases of the Liver are, doubtless, more common in the South and West than any other local affections, and it has been a great defect with our recently published bibliographical collections, and a source of regret and perplexity to our physicians, that whilst, of late, much valuable information has been disseminated with regard to the minute anatomical structure and healthy action of this organ, comparatively little has been written illustrative of its diseases, and pathological changes.

While modern authors have been very successful in availing themselves of the advantages afforded by important recent discoveries in anatomy and physiology, in treating of diseases of the nervous system, skin, kidneys, &c., the newly acquired information with regard to the structure and functions of the liver, seems not, till recently, to have served any very important purpose in enlightening us concerning its diseases.

It seems to us that Dr. Budd, in his work, the title of which we give above, has been most successful in his efforts to supply this deficiency, and, in our opinion, has furnished the profession with a monograph upon diseases of the liver, which, for perspicuity of style, sound scientific views, and methodical arrangement, is not surpassed by any of our best modern productions.

The most recent information concerning the structure and functions of the liver, not having been published in our text books, upon anatomy and physiology, in most common use, it is reasonable to suppose that many practitioners have not, as yet, had the means of acquiring this most important preliminary information. Dr. Budd, therefore, very wisely, as we think, previously to treating of individual diseases of this organ, gives us an introduction upon the "structure of the liver, upon the causes of the variations in its form, size, and

color, and upon the physical qualities and composition of the bile, &c."

The structure of the Liver may be described very briefly, as being composed of hepatic arteries; hepatic veins, portal veins, biliary ducts, with their respective capillary vessels, duly supplied with absorbants, all united together by a dense fibrous membrane.

Like all other secreting mucus membranes, that, lining the secreting tubes and the hepatic ducts, in which they terminate, is covered by a layer of epithelial cells, by which the biliary matter is eliminated or separated from the blood circulating in the portal capillaries.

As to the distribution of blood vessels in the liver, it may be remarked that the portal vein enters the concave surface of the organ, and, after dividing and subdividing into numerous branches, breaks up at last, into innumerable very minute capillary vessels, to form an intricate network around the secreting epithelial cells, the blood not employed by these cells, to form bile, passes into other minute vessels,—the capillaries of the hepatic veins,—and from thence to the right side of the heart, to mingle with the systemic blood.

It appears then, that the capillaries of the portal vein, terminate in those of the hepatic, and that this net work of minute vessels, serves as the medium of connection between them.

This vascular plexus, situated between the termination of the portal and commencement of the hepatic vein, is separated into lobular masses by the larger blood vessels and hepatic ducts. These lobules, thus formed, together with the biliary ducts, and their secreting epithelial cells, constitute the so called, lobules of the liver.

Each of these lobules has its exterior composed, principally, of biliary ducts and branches of the portal plexus, having a small hepatic vein with its capillaries originating in its centre. This arrangement of vessels enables us by the appearance of the lobules, to distinguish between congestion of the hepatic and portal veins, and to detect, also, the undue accumulation of bile in the hepatic ducts.

In diseases of the liver, caused by obstruction to the passage of blood through the hepatic veins, the lobules present a dark vascular centre, with a yellowish or light colored circumference; an appearance produced by an accumulation of blood



in the capillaries of the hepatic vein, and a comparatively empty condition of the portal plexus and minute biliary ducts. On the other hand, in congestion of the portal veins and their capillaries, the dark vascular rings, surrounding light colored centres, presented by the lobules, indicate, not an obstruction to the passage of blood through the hepatic veins, but an accumulation of it, in the vena portarum and its branches. Obstructions to the passage of bile from the liver, and a consequent accumulation of it, in the hepatic ducts, cause the whole organ, but especially the exterior of the lobules, where these minute ducts are most numerous, to present a dark yellow appearance. Thus it is seen that obstruction to the passage of fluid, may take place in either of the above named three classes of vessels, causing hepatic venous, hepatic portal, or hepatic biliary congestion, each depending upon its own cause, and producing its peculiar pathological changes and appearances.

The hepatic artery, upon entering the liver, divides into numerous branches, which are distributed, largely, to the coats of the blood vessels, and in great numbers to the hepatic ducts, gall bladder, cystic, and common ducts. The arterial blood, thus distributed, is taken up by small branches of the portal vein, and, like that from the gastric, splenic, superior and inferior mesenteric arteries, passes in the liver, through a second set of capillaries, the portal plexus.

It is the opinion of most physiologists, founded, partly, upon this anatomical distribution of vessels, that the arterial blood of the hepatic artery serves as nutriment for the liver, and that the venous blood of the portal vein, furnishes the material for its secretion.

Having given the above brief description of the distribution of the vessels of the liver, we will now pass to the consideration of some of the other elements of its structure.

As before remarked, the meshes of the portal plexus or spaces between the vessels which constitute the lobules, are filled up with numerous nucleated secreting cells. The language of our author upon this subject is not susceptible of abridgment and may therefore be quoted. Concerning the structure and functions of these cells, he remarks as follows:

“The cells are flattened, irregular in form, but somewhat

spheroidal, and have each a nucleus, which again contains a central pellucid spot, the nucleolus. Some cells have two nuclei.

"The cells are of various sizes. The largest are usually about the one-thousandth of an inch in diameter. Others are very much smaller, as if not yet fully developed. In some livers the cells, generally, are smaller than in others.

"The cells contain oil-globules and amorphous granular matter. Their colour and transparency depend on the colour and quantity of the matter they contain, which vary very much in different cases. They are usually of a light brown and almost transparent, but in some subjects we find them yellowish and opaque.

"If, while looking at this mass of nucleated cells, we imagine the delicate and now invisible capillaries to be filled with blood, or coloured size, and thus rendered conspicuous, we shall perceive that the whole liver, excluding the canals in which the portal and hepatic veins run, is a solid plexus of capillary blood-vessels, the meshes of which are filled with nucleated cells.

"The mucous membrane of the gall-bladder and ducts, like the excreting ducts of other glands, in fact, like all mucous membranes, and the skin itself, is composed, as Mr. Bowman has shown, of an extremely thin, transparent membrane, without pores or visible structure, whose external or secreting surface is coated with nucleated cells. These cells by their apposition and union, form a kind of pavement on the transparent membrane, which serving as their basis of support, has for this reason been named by Mr. Bowman, the *basement-membrane*. The blood-vessels, lymphatics, and nerves ramify on the opposite, deep, or inner surface of the basement-membrane."

"The researches of Purkinje, Henle, Bowman, and Good-sir, leave no doubt that the nucleated cells are the immediate agents of secretion.

"It is not in the liver only that the cells perform this office, for it seems established as a general law, and it is certainly one of the highest and most interesting which the study of minute structure has yet disclosed—that all true secretion, whether in animals or in plants, is effected by the agency of cells; that, 'however complex the structure of the secreting organ, these nucleated cells are its really operative part.' In each secreting organ, the secreting cells have a peculiar power to form, or to withdraw from the blood, the secretion proper to the part.

"In such of the glands of animals as have excreting ducts, the nucleated cells withdraw from the blood the peculiar principles of the secretions, which they elaborate more or less, and then, in one way or another, whether by bursting or dis-



solving, or by some unknown mode, discharge them through the excreting ducts.

“The evidence of this is, perhaps, as clear in the liver as in any of the glands.

“On examining the nucleated cells of the liver under the microscope, we see that most of them enclose small spheroidal globules, which are recognized by their dark outline, or high refractive power, to be globules of oil or fat.

“In ordinary livers these oil or fat globules are small, and few in number; but in the fatty condition of the liver, so often found in persons dead of phthisis, and in that induced by keeping animals exclusively on fatty substances, they are so large and numerous as to distend the cells to double their natural size, and consequently to cause a great increase in the volume of the liver.”

Having described the most important parts which constitute the liver, it remains to say a few words concerning its areolar tissue and lymphatic vessels.

The areolar tissue seems to connect together and protect the more important elements of the organ, and in man, is spread out over its whole surface, and by forming tubes, called portal canals, surrounding the ducts and portal veins, extends into its interior, constituting the medium of connection between its different parts. This structure is interesting in a pathological point of view, as will be seen hereafter, on account of its being the part primarily and principally effected in cirrhosis.

As for the lymphatics, those which are superficial, ramify in the proper capsule of the liver, and the deep seated ones, in the portal canals.

“Having examined the structure of the liver, we may next consider the composition and uses of the bile.

“We have seen that the nucleated cells in the lobules of the liver withdraw from the blood the principles of their secretion, which they probably elaborate in some degree, and then discharge into the ducts. In its passage through the ducts, the matter secreted by the lobules becomes mixed with that secreted by the ducts themselves, which, if we may judge from the large quantity of blood the ducts derive from the hepatic artery, and the numerous involutions of their mucous membrane, must be considerable in quantity. Secretion is always going on, both in the lobules and in the ducts, and the compound fluid derived from these two sources probably passes continuously along the ducts as far as the junction of the hepatic duct with the cystic.

“When the stomach and duodenum are empty, part only of the bile flows along the common duct into the duodenum; the remainder passes down the cystic duct into the gall-bladder.

“During digestion, on the contrary, the gall-bladder contracts, and part of the bile accumulated in it, together with all that brought by the hepatic duct, is poured into the duodenum.

“In the gall-bladder, the bile loses, by absorption, some of its most watery parts, and is further modified by the addition of the proper secretion of this cavity.”

“The bile, in man, has been supposed to be ultimately derived from two sources. It is clear enough that, in most circumstances, a large proportion of the proper principles of bile are derived from the waste of the body, and are a product of the metamorphosis of the tissues and of materials stored away in the system. In the carnivora, in the hybernating animal in its winter sleep, and in the foetus, these materials must be its only source. And under certain conditions, the same must be the case in man also. In protracted abstinence, for example, bile continues to be formed, and often in large quantities. Here, the living tissues gradually waste away, and their materials are discharged in the excretions. The three principal outlets at which they make their appearance, are the liver, the lungs, and the kidney. Nitrogen predominates in the compounds which escape through the last-named organ, while the two former separate principally hydrogen and carbon. But while the liver and lungs have thus much in common, there is this important difference between them; that in the lungs, the hydrogen and carbon pass off *burnt*—that is, in combination with oxygen, as water and carbonic acid,—while, in the liver, they escape uncombined with oxygen, and still combustible. From which it would appear, that the larger the amount of these elements discharged by the lungs as water and carbonic acid, the less, *cæteris paribus*, must remain *unburnt* to form constituents of bile. So that here, we already meet with a fundamental and important relation between the secretion of bile and the great function of respiration. I shall not, however, dilate upon this topic now, as in endeavouring to follow the bile to its final destination, we shall again have to consider relations of a similar kind.”

It is also probable, that in man, and in all animals which live on a mixed diet consisting largely of combustible matters, such as starch, sugar, alcohol, and other compounds destitute of nitrogen, these substances, also, contribute to the elements of the bile.

With regard to the part the liver performs in the animal body in secreting bile, it may be remarked, that physiologists,



though much better informed than formerly upon this subject, are still unsettled in their opinions. One of the principal effects of the action of the liver in secreting bile is, evidently, to purify the blood, by separating from it noxious and effete principles.

“It will be remembered that all the blood sent to the stomach and intestines, has to pass through this organ before it can again mix with the venous blood from other parts of the body. Now the blood that has come from the stomach and intestines must necessarily be charged with many impurities besides those derived from the mere decay of the tissues. Along the extensive mucous tract, with which every thing we eat or drink is brought in contact, absorption is constantly going on, and various matters must, therefore, enter the portal vessels, not fit by their nature to form blood, or to serve any other purpose in the body. Many of these substances are removed from the blood in its passage through the liver. The discharge of such matters through the liver, when they are in unusual quantity, or of a particular kind, is, no doubt, the primary condition of many biliary disorders.

“But the bile is far from being a merely excrementitious fluid. Arrived in the intestine, it has important offices to serve, as indeed might already be surmised from its being poured into this canal so near its upper end. These offices are related to the function of digestion on the one hand, and (according to Liebig) to that of respiration on the other.”

The bile is supposed to assist in digestion, by uniting by means of its alkaline constituents, with oils and fats, forming with them a kind of soap which is soluble, and also by means of the same principle, to neutralize the acid which passes from the stomach, after having performed its part in the process of digestion.

Another object of the bile is, doubtless, to promote the discharge of the contents of the intestines, by acting as a natural purgative. This is evident, from the fact, that an excess of bile is attended by diarrhea, and a deficiency by constipation.

“We have next to consider the final destination of the bile itself. It seems clear that, in man, under ordinary circumstances, the bile which is evacuated by the bowel, can be but a small proportion of the whole amount secreted. For the quantity thus voided is very trifling, and consists chiefly of its colouring matter. The remainder, and larger part, must, therefore, be re-absorbed. Liebig states, that, in the carni-

vora, the whole of the bile is re-absorbed. The excrements of these animals contain neither bile nor soda; for water extracts from them no trace of any substance resembling bile, and yet bile is very soluble in water, and mixes with it in every proportion. It has been lately advanced by Liebig, on the authority of quantitative analysis, that the portion of bile re-absorbed, is eventually discharged through the lungs as carbonic acid and water; thus supplying fuel for respiration and supporting animal heat."

"Thus it appears, that the relation of bile to respiration is direct and fundamental. Fortunately, the activity and effects of the respiratory process are largely under our control. In the vast power we have of modifying these by appropriate regulations, having reference to the great conditions of air, exercise, temperature and food, we have means much more effectual than any other, in dealing with biliary disorders.

"Of these disorders, on the other hand, the neglect of such regulations is by far the most fruitful source.

"Thus, for example, may be explained many of the bilious disorders of hot climates. If, in such climates the food be not regulated in accordance with the smaller needs of the economy as to animal heat, an excess of bile is formed, and disorder of the stomach and intestines—bilious vomiting, and diarrhoea—are the consequence.

"Hence, also, the general repugnance to rich meats, and the greater tendency which these and spirits unquestionably have to produce disease of the liver, in hot seasons and in tropical climates.

"In the same way may be explained the greater frequency of bilious disorders in middle life, when men begin to take less exercise, and their respiration becomes less active, while on the other hand, the tendency to indulge at table but too often increases."

In the preceding remarks we have, as far as space will permit, given an exposition of the facts and principles laid down in our author's introduction. We shall now proceed to give a brief synopsis of his views and opinions with regard to individual diseases, as expressed in the following chapters.

Congestion of the liver is the morbid condition of the organ first treated of, and is described as being very common, from the fact, that it is composed mostly of vessels, and has circulating through it, a large proportion of blood, the portal, already retarded by its passage through one set of capillary vessels.

Congestion may take place in the hepatic or portal veins, or in the hepatic ducts. When from organic disease of the



heart, or acute disease of the lungs, the course of the blood through the chest is impeded, there is, always, congestion of the hepatic veins.

The liver in such cases presents different appearances, according to the degree of congestion.

“In slight degrees, the twigs of the hepatic vein and the capillaries that terminate in them, are found, after death, turgid with blood, while the portal twigs, and the capillaries that immediately spring from them, are empty. A section of the liver presents, in consequence, a mottled appearance. The central portions of the lobules, where the vessels are congested, form isolated red spots, while the margins of the lobules, where the vessels are empty, have a colour which varies from yellowish-white to greenish, according to the quantity of oil-globules and of colouring matter which the cells contain. This appearance has been termed by Mr. Kiernan, the first stage of *hepatic-venous* congestion. When the course of the blood through the heart or lungs is impeded, the hepatic veins and the capillaries that open into them are naturally the first to become turgid.

“In a further degree of congestion, more of the vessels forming the capillary network are filled of course in a direction backward, towards the portal vessels. The congestion extends from lobule to lobule, at those points where the adjacent lobules are connected by their capillaries; and when the congestion has nearly, but not quite, reached those twigs of the portal vein that go to define the lobules, all the capillaries of the lobules will be injected, excepting those immediately surrounding the portal twigs. A section of the liver will still present a mottled appearance, but now the pale portion will be in spots, where the uninjected twigs of the portal vein are divided, and the red portion will form a band continuous throughout the liver. This appearance is what Mr. Kiernan has called the second stage of *hepatic-venous* congestion.

“A liver congested to this degree is enlarged from the large quantity of blood it contains; and, as Mr. Kiernan has remarked, it is frequently at the same time in a state of *biliary* congestion. The biliary congestion is an accumulation of biliary matter in the lobules of the liver, giving the uninjected portions of the lobules a deeper yellow or greenish tint than is natural to them. It seems to be a consequence of the congestion of the blood, and is produced perhaps in a great measure by impediment to the free escape of the bile through the small ducts, from the pressure exerted on them by the distended vessels.”

“When obstruction takes place to the circulation through the

chest, but more particularly when the heart becomes over-distended with blood, we observe the countenance gradually assume a dingy aspect, in which the purple suffusion of carbonized blood is mingled with the yellow tint of slight jaundice: the conjunctiva is more decidedly tinged: and if the disease continue long, sometimes completely prevails over the purple tint.'

"This jaundiced tint of the complexion, co-exists with a jaundiced condition of the liver itself, or, as Mr. Kiernan expresses it, with *biliary congestion* which has already been noticed as sometimes consequent on sanguineous congestion.

"If the biliary congestion be long kept up, the function of the cells in the congested lobules is arrested, or rendered less active, and the cells become perhaps impaired in their vitality and powers of reproduction. The liver is permanently injured in its secreting element, as it is when the common duct has been long obstructed.

"Andral and most other writers have remarked that congestion of the liver from a mechanical cause, when long continued often leads to organic disease of the liver; and they have explained in this way the frequent association of organic disease of the liver with organic disease of the heart."

"There is little to be said on the treatment of mechanical congestion of the liver. The congestion is the consequence of another disease, and the treatment which relieves the latter, will diminish the congestion. When the congestion depends on obstacle to the circulation through the heart, the proper remedies are those,—such as bleeding, purgatives, diuretics, rest,—which most effectually relieve the heart. When the liver cannot free the blood from the principles of bile, or the skin becomes sallow, the patient should carefully abstain from rich meats and fermented drinks, which would render the liver still more inadequate to its office, and increase the bilious disorder."

"In congestion of the liver from disease of the heart and lungs, the hepatic veins, being nearer the seat of obstruction, in the course of the circulation, than the portal veins, are naturally the vessels first distended;—and when the congestion is partial, the hepatic twigs, and the capillaries that immediately surround them, are found after death, to be the full vessels; the portal twigs, and the capillaries that immediately spring from them, the empty ones.

"But now and then, the portal veins, and the capillaries immediately springing from them, are found alone congested. The margins of the lobules, and the interlobular spaces are then of a red colour—forming a continuous red band—while the centres of the lobules appear as isolated pale spots.

"Mr. Kiernan has applied to this congestion of the portal veins only, the term, *portal-venous* congestion. From the pale



uninjected portion being in isolated spots, it looks very like the second stage of hepatic-venous congestion. It is remarked by Mr. Kiernan, that the injected substance never has the deep red colour that it has in hepatic-venous congestion."

Inflammatory diseases of the liver are next treated of by the author.

The old division of this class of diseases into acute and chronic is, in his opinion, faulty, from the fact, that those attacking the exterior of the organ, being productive of more tenderness and pain, are termed acute; whilst others, no less rapid in their course being deeply seated and consequently less tender and painful, are termed chronic.

The classification of inflammatory diseases is as follows.

1. Suppurative inflammation or that which leads to supuration and abscess.
2. Gangrenous inflammation.
3. Adhesive inflammation, or inflammation which causes effusion of coagulated lymph.
4. Inflammation of the veins of the liver.
5. Inflammation of the gall bladder and ducts.

The first mentioned or suppurative inflammation and abscess of the liver may be caused, either by blows or other mechanical injury, by suppurative inflammation of veins, or by ulceration of parts from which blood returns through the liver.

Inflammation and abscess of the liver from external violence is so rare, and the treatment in such cases so obvious, that we will remark, merely, that its usual seat is upon the convex surface of the right lobe, and that the rarity of inflammation and abscess from accidental injury, shows how effectually the liver, when of its natural size, is shielded by the ribs.

"A second, and far more frequent cause of abscess of the liver, is suppurative inflammation of some vein, and the consequent contamination of the blood by pus."

"The mode of formation of these abscesses is well illustrated by an experiment made more than half a century ago by Dr. Saunders, and related by him in his admirable work on the structure and diseases of the liver. He injected 3ij of quicksilver into the crural vein of a dog. No ill effects were observed the first day, but at the end of this the dog became feverish, and after two or three days had cough and difficulty of breathing, which continued until its death. On examina-

tion after death, Dr. Saunders found the lungs studded with small indurated masses, which he calls tubercles, and small circumscribed abscesses. In the centre of each was a small globule of mercury.

“Here, the globules of mercury, like the globules of pus in purulent phlebitis, became arrested in the capillary vessels of the lungs, and each globule, acting perhaps by mere mechanical irritation, excited circumscribed inflammation and abscess. The inflammation was circumscribed, because the irritation that excited it, acted only at particular points.

“In the dog experimented on by Dr. Saunders, the lungs were the only organs in which abscesses were found. The reason of this is obvious. All the mercury, conveyed directly to the lungs, became arrested in their capillaries. No globules passed through to cause inflammation and abscess of other organs.

“In the same way, in some cases of purulent phlebitis consequent on injury of the head and limbs, or on amputation, abscesses are found in the lungs only; and they are usually found in the lungs in greater number than in other internal organs. After the lungs, the liver is the organ in which they are most frequent; a circumstance attributable, in some measure, to the large quantity of blood that flows to the liver, and to the slowness of the current through its capillary network; but, perhaps, still more, to those vital or other attractions by which matters of particular composition are there detained and excreted.”

“There is a close analogy between the secondary abscesses from phlebitis, and secondary masses of cancer.

“A cancer of the breast may be the source of cancerous tumours in the lungs and liver, just as an inflamed vein in the arm may be the source of abscesses in those parts.

“The abscesses and the secondary cancerous tumours will be scattered in the same manner, and immediately surrounded by healthy pulmonary or hepatic tissue.

“The lungs and the liver are the organs in which secondary cancerous tumours, as well as the abscesses from phlebitis, are most frequent.

“The cancerous tumours and the abscesses have in each organ the same form and seat; and in the lungs, both have a great predilection for the surface.

“These points of resemblance can hardly be explained, except on the supposition that the germs of the two diseases,—cancer-cells and pus-globules,—are disseminated in the same manner through the veins.”

“The veins that feed the vena portæ, are little exposed to accidental injury, but some of their branches are divided in operations on the rectum and for strangulated hernia; and, as



might have been anticipated, these operations are sometimes followed by abscess of the liver.

“Cruveilhier relates a case where abscesses of the liver were immediately consequent on repeated attempts to return a prolapsed rectum.

“The patient, a man of sixty, had been subject to prolapsus many years. The bowel protruded at the first effort to empty it, but was usually returned without difficulty. When he sought assistance on the last occasion, it had been down twenty-four hours, and was replaced only after repeated and violent attempts, which gave him much pain.

“The same day the expression of his countenance altered, and his pulse became small and unequal. He soon fell into a state of prostration, with a cold skin, vomiting, hiccough, stupor, but without pain, and died on the fifth day.

“A great number of small abscesses, some superficial, others deep-seated, were found in the liver. The hepatic tissue for a short distance round each of them was of a brown slate colour and softened. (Cruv. liv. xvi.)

“Dance mentions a case in which abscesses formed rapidly in the liver after an operation for cancer of the rectum, where cauterization was practised; another, in which they were consequent on a simple operation for fistula; two others, in which they follow the operation for strangulated hernia, where a portion of irreducible omentum suppurated externally. (Archiv. Generales, t. xix. p. 172.)

“There can be little doubt that in all these cases, the abscesses in the liver were the consequence of phlebitis caused by the operations.”

The remaining causes of suppurating inflammation and abscess of the liver, are, as stated above, “ulceration of the large intestine, or more generally, of the intestines, the stomach, the gall-bladder or ducts; parts which return their blood to the portal vein, to be thence transmitted through the capillaries of the liver.”

One of the diseases most frequently attended with ulceration of the intestines is dysentery, and it appears from numerous cases cited by our author, that whenever, in this disease, there is ulceration of the intestinal mucus membrane, abscess of the liver is also found.

Upon this subject he remarks:

“A connection between abscesses of the liver and dysentery has long been noticed, but the two diseases are associated far more frequently than has been generally imagined. Of the twenty-nine cases recorded by Annesley, there are twenty-one, or nearly three-fourths, in which there were ulcers, more

or less extensive, in the large intestine; and two other cases, in which the large intestine was contracted or strictured, in consequence, no doubt, of dysentery at some former period. It is not unlikely that in some of the remaining cases, ulceration of the intestines existed but was not noticed.

“Of the fifteen fatal cases which fell under my own observation at the Dreadnought, the state of the intestines was not noticed in two. In eight of the remaining thirteen cases, there were ulcers in the large intestines, and in one other case, two ulcers in the stomach; so that, in nine of thirteen cases, or in nearly three-fourths, there were ulcers in the large intestine or stomach. In another of these cases, without ulceration of the stomach or intestine, there was ulceration of the common gall-duct.”

After recording numerous other cases of dysentery attended by abscess of the liver, our author remarks, that “the association of dysentery with abscess of the liver, is noticed by most physicians who have treated of either of these diseases,” and that “it is impossible to suppose that this is a mere coincidence of disease having no relation to each other.”

Upon the manner in which the ulcerated mucus surface acts to produce hepatic abscess, his language is as follows:

“Admitting dysentery, or ulceration of the bowel, to be a source of abscess of the liver, it is obvious that the liver does not become involved by spreading of the inflammation, but by some contamination of the portal blood.

“This may be either by *pus*, formed by suppurative inflammation of one of the small intestinal veins; or by matter of other kind resulting from softening of the tissues; or by the fetid gaseous and liquid contents of the large intestine in dysentery, which must be absorbed and conveyed immediately to the liver. It seems probable, that contamination of the first kind usually gives rise to small scattered abscesses; of the last, to diffuse inflammation, and a larger, perhaps single, collection of *pus*. If the morbid matter be such, that it does not mix readily with the blood—as globules of *pus* or mercury—it will cause small, circumscribed abscesses, the rest of the liver being healthy. If, on the contrary, the morbid matter be readily diffusible in the blood, all the blood will be vitiated, and diffuse inflammation result.

“The admission of this explanation of the relation of abscess of the liver to dysentery, would lead us to expect that abscess of the liver might occasionally be consequent on ulceration of the stomach, or gall-bladder,—parts, which, like the larger intestine, return their blood to the portal vein,—and this is found to be the case.”



As to symptoms it is stated that they are generally much more obscure than they are represented to be in books upon this subject. "A picturesque group is sketched, which it seems very easy to identify, but in actual practice it is far otherwise."

"We can only infer that abscesses are forming in the liver by the occurrence of *special* symptoms—pain in the region of the liver and jaundice—in the midst of the general disorder. But these special symptoms do not exist in all cases. There may be no jaundice; and pain, even, may be wanting, or the typhoid state into which the patient falls may prevent his distinctly perceiving or expressing it. In such cases, the abscesses in the liver can be discovered only after the death of the patient.

"In the same way, when inflammation of the liver occurs during the acute stage of dysentery, or on a recurrence of acute symptoms in chronic dysentery, the general symptoms do not aid us in discovering it, because they are fairly attributable to the primary disease. The diagnosis must be founded on local symptoms chiefly—pain and tenderness referable to the liver, tension in the right hypochondrium, and jaundice. Our knowledge of the connection between the two diseases enables us to attach due importance to these symptoms, and ascribe them to their actual cause. Pain and tenderness in the region of the liver, slight increase in its volume, and jaundice, which, in other circumstances, might excite little alarm, and be attributed to their most frequent cause,—inflammation and obstruction of the gall-ducts,—when they occur in the course of dysentery, will lead us to dread suppurative inflammation and abscess."

"The *treatment* of suppurative inflammation of the substance of the liver is very unsatisfactory.

"When the inflammation is caused by phlebitis consequent on a wound or injury of the head or limbs, the whole mass of venous blood is contaminated by pus, suppurative inflammation is likewise set up in many lobules of the lungs, perhaps in some of the joints, and, it may be, in various other parts of the body; and the patient soon falls into a typhoid state, which bleeding and other lowering measures would only make worse. The inflammation thus excited passes rapidly on to suppuration, and we have little, if any, power to arrest it.

"The chief objects of treatment should be, to prevent, where this is possible, the passage of any more pus into the blood from the injured part, and to support the strength of the patient.

"When suppurative inflammation of the liver is caused by a blow, the lungs and other organs do not suffer as in puru-

lent infection of the blood: neither are they thus implicated, when it is induced by ulceration of the stomach, or intestines, or gall-bladder, since, in these cases, the noxious matter which excites the inflammation, is detained in the liver or drained off through it. Here, the strength of the patient is not so profoundly sunk, and we may hope by means of depletion, especially local bleeding, to control the inflammation, and limit its extent; and, by rendering the abscesses smaller, to protract, at least, the patient's life. In some cases we may, perhaps, by active measures employed early, prevent matter from forming, but we have no evidence that this can be done when the inflammation is caused by pus, and is the consequence of inflammation of one of the veins that return their blood to the portal vein.

"In this country, mercury has generally been resorted to, when the local symptoms have led to the suspicion that the liver was diseased; but I fear, with no benefit to the patients. It has been well observed by Abercrombie, "In the liver diseases of this country, mercury is often used in an indiscriminate manner, and with very undefined notions as to a certain specific influence, which it is supposed to exert over all the morbid conditions of this organ. If the liver be supposed to be in a state of torpor, mercury is given to excite it; if in a state of acute inflammation, mercury is given to moderate the inflammation and reduce its action."

"This indiscriminate use of mercury has resulted from its unquestionable efficacy in some derangements of the liver, and from the difficulty of distinguishing the different disorders of this organ. In doubt as to the real nature of the malady, the practitioner is naturally anxious to give his patient the chance of a remedy that occasionally produces marked benefit; but often, in doing so, aggravates the disorder it is his object to relieve.

"This misapplication of mercury will continue until the various diseases and derangements of the liver are better discriminated, and practitioners have ascertained those in which mercury has a curative influence. There can be no doubt, that much of our uncertainty as to the action of this and other medicines, arises from our confounding under the same name, and treating in the same manner, diseases that spring from different causes, and are essentially different in their nature.

"It seems to me that mercury is peculiarly unsuited to the disease we have been considering—suppurative inflammation of the liver.

"One objection to its employment in this disease, is the short time allowed for its action. When the inflammation is consequent on a wound or injury, and also, in all probability, when it occurs in the course of dysentery, it passes on to suppuration in two or three days; and when suppuration has once



taken place, and abscess has formed, it is agreed by all who have had experience on the subject, not only that mercury does no good, but that in whatever quantity it be given, it fails to produce its usual constitutional effects. This fact, singular as it may appear, seems to be fully established. Annesley says, 'There can be no doubt that the system will not be brought under the full operation of mercury, or that ptyalism will not follow on the most energetic employment of this substance, where abscess exists.'

"He repeats this opinion again and again, and even considered resistance to the action of mercury, a proof that abscess had formed in the liver.

"It is only, then, before suppuration has taken place, that mercury can do any good, and during this time, from the presence of high fever, the system is with difficulty affected by it.

"When abscesses have formed and become encysted, the time for active treatment by medicine has of course passed away. The wisest course, then, is, I believe, merely to regulate the bowels by rhubarb, or rhubarb and aloes, to recommend habits of strict temperance, and, where the circumstances of the patient allow, residence in a mild climate. If the complexion be sallow or dusky, the nitro-muratic acid, as recommended by practitioners in India, will often be productive of benefit. Whenever there is reason to infer, from increase of pain and fever, that fresh inflammation is set up within the cyst, and that the abscess is growing larger, blood should be taken from the side by leeches or cupping, or a blister should be applied there.

"Many physicians have recommended that abscesses of the liver should be opened; but there is much danger in the practice."

Gangrenous inflammation of the liver is next treated of.

This disease is not common, but when cases do occur, they are found generally, if not always, to be produced by morbid matter transmitted to the organ in the blood from other parts affected with gangrene.

In support of this conclusion several cases are related, one in which abscesses in the liver and lungs followed a contused wound of the finger; another in which mortification of the toes from cold, caused rigors and typhoid symptoms, death on the sixth day, gangrene of the liver, the lungs and spleen, ulceration of the pharynx, and a deposition of pus in the shoulder joints.

"In this case the existence of gangrene, both in the liver

and in the lung, was clearly shown by the defined line surrounding the gangrenous portions.

"The source of the mischief here was, no doubt, the gangrene of the toes produced by cold. The man was in the prime of life, of spare habit, muscular, florid, and in good health at the time of the frost bite. The case shows us what a serious thing a small patch of gangrene, in any part of the body, may become.

"The dissemination of the gangrenous masses—the existence of a number of them *isolated and at a distance from one another*—proves that the septic agency was conveyed by the blood. The noxious matter, thus disseminated, destroyed the vitality of the tissues on which it acted most strongly.

"The chemical theory of these septic changes is now well known. All parts in which they are taking place, have a tendency to affect other parts brought into contact with them, with the same mode of transformation. The case just related—and it is by no means a solitary one,—offers one of the most interesting illustrations of this theory in the whole range of pathology. But, whatever be the explanation adopted, the fact is certain, and it is one of extreme importance, that gangrene of the extremities, or of any part of the surface of the body, produced by cold, by pressure, or in any other way, has a tendency to infect other and remote parts of the body with the same change."

"It is in this way, in effect of gangrene of some other part, that true gangrene of the liver is most frequently produced. Rokitansky states, that he has several times observed gangrene of the liver, *in connexion with gangrene of the lung*; and has never found it without gangrene of some other part."

*Adhesive inflammation* of the capsule, and of the substance of the liver, and *cirrhosis* are the consequences of inflammation which causes an effusion of coagulable lymph.

"When lymph is effused in greater quantity on the surface of the liver, it causes adhesion of greater extent; and if any of the lymph fall down among the intestines, it will glue adjacent folds of the intestine together.

"When abscess excites adhesive inflammation of the *substance* of the liver, the lymph can never be diffused in this way. It all remains, where first deposited, immediately around the abscess, and forms a cyst for the matter."

"Deep-seated adhesive inflammation of the liver produces different effects, according to the parts it principally involves. Sometimes the lymph is effused almost exclusively into the areolar tissue in the portal canals of considerable size, and if the person die long after this has occurred, all the considera-



ble branches of the portal vein are found surrounded, in some places to a distance perhaps of half an inch, by new fibrous tissue, which by its contraction has drawn in and puckered the adjacent portions of the liver. The remaining portions of liver may be little, if at all, altered in texture, and may be readily scraped away from these indurated portions. The main branches of the vein are pervious, but many of the small twigs that spring from them are obliterated. The parts which these twigs supplied are atrophied, and the liver proportionally reduced in bulk. Where such portions are near the surface, the capsule is somewhat drawn in and puckered. Together with these changes, there are usually, if not always, thick false membranes on the capsule of the liver, or extensive adhesions, by means of old tissue, between the liver and adjacent organs. Usually, too, there are old false membranes on the surface of the spleen, and marks of adhesive inflammation of other parts, especially the pericardium and the pleura.

“I have several times met with this form of disease in persons who had drunk hard of spirits. It comes on with well-marked symptoms of inflammation of the liver,—pain in the side, vomiting, fever, and perhaps jaundice. These symptoms subside after a time, but the patient does not regain his former health. The liver has been permanently damaged; part of its secreting substance becomes atrophied from closure of the small portal veins, and it is no longer adequate to its office. The patient has difficult digestion, looks sallow, and does not recover his former strength.

“In other cases of deep-seated adhesive inflammation of the liver, the lymph is not effused solely, or chiefly, in the large portal canals. We do not find the fibrous tissue about the large branches of the portal vein especially, but about the small twigs that separate the lobules. All the substance of the liver is rendered tough by this new fibrous tissue, which, when the liver is sliced, is seen to form thin lines between small irregular masses of lobules. At the parts on the surface of the liver which correspond to these lines, the capsule is drawn in, so that the surface has a ‘hob-nailed’ appearance.

“The tissue of the liver is paler than natural, from the presence of this white fibrous tissue, and from its containing but a small quantity of blood; and it is often yellowish from accumulation of biliary matter in the cells. When this is the case, a section has the grayish and yellow colour of impure bees-wax, and, in consequence, the disease has been called by the French, *cirrhosis*.”

“*Causes.* There are perhaps various conditions capable of producing, or that may help to produce, the different forms of adhesive inflammation of the substance of the liver under consideration, but the most common and most powerful cause in

this country, indeed the only cause whose influence is apparent, is spirit-drinking."

"The inflammation of the areolar tissue in the portal canals is probably owing to the diffusion of alcohol through it from the portal veins. We can readily fancy such diffusion taking place, if we consider how volatile alcohol is, and how readily it permeates animal membranes and tissues. These properties of alcohol also explain the circumstances noticed by most pathologists, that in cirrhosis the *whole* liver is changed in structure, and the different parts of it generally in pretty equal degree.

"If globules of mercury or of pus find their way into the veins that feed the vena portæ, they become arrested at particular *points* in the lobules of the liver, and excite at each of those points circumscribed inflammation and abscess, while the rest of the liver may continue healthy; but alcohol, being volatile, and mixing readily with water, becomes equally diffused through the whole mass of portal blood, flowing through the liver, and the inflammation it excites involves in consequence the entire organ."

"*Symptoms.*—Cirrhosis usually comes on very insidiously, and when the inflammation does not involve the capsule of the liver, the symptoms are in most cases few and obscure, until the fibrine effused in the substance of the liver has caused impediment to the flow of the portal blood, and to the secretion and escape of bile. Some enlargement of the liver, a dull pain in the right hypochondrium, and disordered digestion, are the chief symptoms in the early stages, and some of these even may be wanting, or be so slight as to escape our notice.

"In some cases however, the onset of the disease is more sudden, and the symptoms at first are more striking and more indicative of active inflammation. The patient has fever, with loss of appetite, perhaps occasional vomiting, and, it may be, jaundice, and his urine is high-colored and charged with lithates. There is much pain and tenderness in the region of the liver, and the liver is readily felt to be enlarged.

"The disease begins in this way when the lymph is effused at once, and the inflammation involves the capsule of the liver.

"When the acute symptoms are subdued by treatment, or subside of themselves, the patient follows his usual occupations, and presents only the slight tokens of disease before mentioned. But he finds that he gradually grows weaker and thinner, his appetite is uncertain, his skin becomes dry and rough, and his complexion sallow and earthy.

"After the lapse of some weeks, or months, or years,—according to the quantity of lymph first effused, the success of the treatment then adopted, and the subsequent habits of the patient—the fibrine poured out has become so contracted, and is in such quantity, that the free passage of the blood through



the liver, and perhaps also the free escape of bile from it, is prevented. There then occur a different train of symptoms, which are so characteristic, that there is little difficulty in detecting the disease.

“The belly becomes enlarged from effusion of serous fluid into the cavity of the peritoneum, which takes place without pain or tenderness, and gradually increases so as to cause great distension of the belly, and often, by impeding the movements of the diaphragm, much difficulty of breathing. In some cases this dropsy of the belly is followed by œdema of the legs, but there is no œdema of the hands or face, unless there be likewise disease of the heart or kidneys.

“The patient is liable to hemorrhage from the bowels, and to piles, and the veins on the surface of the belly are enlarged. This enlargement of the cutaneous veins shows clearly that the current of the portal blood is impeded, and is very characteristic of the disease we are considering.

“The complexion is sallow and earthy, or of a slightly greenish cast, and the skin is almost invariably dry and rough.”

“It will readily be seen, that most of the symptoms of the advanced stage of cirrhosis result from obliteration or compression of the small twigs of the portal vein, and the consequent obstacle to the circulation through the liver. The blood in the portal vein cannot pass through the liver with its usual freedom, the veins that go to form the portal vein become, in consequence, distended, and various effects follow.”

One of the diseases most commonly produced by cirrhosis of the liver is *ascites*. In consequence of the obstruction to the passage of blood from the portal veins, the serum transudes through the coats of the vessels, filling the abdominal cavity and producing all the distressing symptoms consequent upon dropsical effusion into the peritoneal cavity.

Another effect of this condition of the liver, is a congested condition of the vessels of the intestines, giving rise to piles and not unfrequently to discharge of blood from the stomach or bowels.

The blood impeded in its passage through the liver, finds its way to the heart, through the cutaneous veins which are in consequence distended.

“*Treatment*.—From what has been already said of the nature of cirrhosis, it is quite clear, that it is only in the early stage of the disease that we can materially benefit the patient. During this stage, while the inflammation is active, it may perhaps be in our power to lessen the amount of effusion, and before the lymph effused has become organized, even to cause

its removal by absorption. But when fibrine has been thrown out in large quantity, and when it has become organized, or is otherwise incapable of removal, and has already by its contraction caused much impediment to the flow of portal blood, and materially impeded the due secretion of bile, medical treatment can be only palliative. It is, therefore, of the utmost importance that the disease be detected early, in order that we may be able to obviate such grave and irremediable effects. But, as we have seen, this is not without difficulty, as the symptoms are then often few and very obscure, and it is only by considering the previous habits of the patient, that we see in them the early tokens of organic disease. In the person of a spirit-drinker, we should never neglect pain and tenderness in the region of the liver, especially if associated with some degree of fever.

“At the commencement of the disease, the best treatment is, cupping over the liver, with saline medicines and low diet. While there is much tenderness, and the patient is feverish, nothing produces so much relief as cupping. We must bear in mind, however, that hard drinkers bear bleeding ill, and be careful not to push this remedy too far. Delirium tremens, or other alarming disorder, may be the consequence of its rash and inordinate employment. When bleeding is not considered safe, much benefit may be derived from the application of a blister.

“When the fever has abated, and the liver is still large, mercury and iodide of potassium are the medicines from which most benefit may be expected. Blue pill may be given in moderate doses, so as slightly to affect the mouth; or iodide of potassium may be given internally, and, at the same time, the iodine ointment be rubbed into the side.”

Inflammation of the veins of the liver, like phlebitis in other parts, may be suppurative, that is, it may lead to the formation of abscess, or it may be adhesive and lead only to the effusion of coagulable lymph which blocks up and obliterates the vein.

Inflammation of the trunk of the vena portæ is not common for the reason that it is deep seated, and consequently less liable to wounds and other injuries. Cases are related, however, in which inflammation and abscess of the liver were consequent upon suppurative inflammation of this vein.

“Pus-globules brought to the liver by the portal vein, usually become all arrested there, and do not pass through, as they often do through the lungs, to cause scattered abscesses in other organs. It is for this reason that suppurative inflamma-



tion of a vein that feeds the vena portæ, kills less quickly than suppurative inflammation of a vein that returns its blood immediately to the lungs. The blood is filtered, as it were, of pus, in passing through the liver, and the local disease is confined to that one organ."

"Mere adhesive inflammation of branches of the portal vein, does not prove fatal, like suppurative inflammation; and on this account, and from the difficulty of distinguishing the different inflammatory diseases of the liver during life, we cannot yet give its clinical history. The patient recovers, and when he dies, perhaps some years after, of another disease, we see merely the ultimate changes to which obliteration of branches of the portal vein leads. These changes are very striking and characteristic. The surface of the liver is marked by deep linear fissures, corresponding to the obliterated branches of the vein, and caused by atrophy of those portions of the liver which the obliterated branches supplied."

The subject next treated of, is inflammation of the gall-bladder and ducts.

"Inflammation of the gall-bladder and ducts probably arises from various causes, each of which determines in great measure the character and the course of the inflammation, and its mode of termination—so that we cannot expect a satisfactory account of the different kinds of inflammation until we can arrange them according to the causes by which they are respectively produced."

"The different forms of inflammation of a mucous membrane, considered with reference to their effects, are

"1st. What may be called *catarrhal* inflammation, which merely increases the quantity and changes the quality of the natural *mucus*, often rendering it viscid, whitish, and opaque."

"2d. *Suppurative* inflammation, where the matter secreted is purulent.

"3d. *Croupal* or *plastic* inflammation, where the matter effused forms a solid albuminous layer on the diseased surface, of which, when this is a tube, it becomes a perfect *cast*.

"4th. *Ulcerative* inflammation—if, indeed, the process which leads to ulceration can with propriety be classed with those leading to the results before mentioned, and be comprehended with them under the generic term, *inflammation*."

"Catarrhal inflammation of the ducts is, probably, not uncommon. It is not a fatal disease, and, like catarrhal inflammation of other mucous membranes, may cause no permanent changes; so that it may often have occurred, where no traces of it are found. It happens, however, not very unfrequently, that on squeezing the hepatic ducts, a viscid whitish fluid oozes out, which, on examination through the microscope, is

seen to be chiefly made up of the prismatic epithelial cells of the gall-ducts. The symptoms we should expect in catarrhal inflammation of the hepatic ducts, are some degree of feverishness, with slight pain in the region of the liver, and if many of the ducts become closed by thickening of their coats, or be choked by the viscid secretion, slight enlargement of the liver, and jaundice.

"Many of the cases of simple jaundice coming on in healthy persons, and attended with very little pain and fever, are probably cases of this kind.

"In a severer form of inflammation, the matter secreted is purulent, but it has seldom the visible characters of pure pus. The pus is mixed with opaque mucus secreted at the same time, and, it may be, with bile also. If the bile be in considerable quantity, and ammoniacal, its alkali renders the pus glairy, and the result is a viscid, greenish, or yellowish fluid, very different in appearance from pure pus."

"Suppurative inflammation of the gall-bladder seems especially liable to occur when, by any cause, the cystic duct is permanently closed.

"Cruveilhier (liv. xxiii. pl. 5) has given a plate of a liver studded with cancerous tumours, in which the cystic duct was obliterated, and the gall-bladder inflamed and full of pus. No notes of the case are given.

"A similar instance is recorded by Andral, (Clin. Med. iv. 518,) in the case of a woman who died at the age of 47. There were numerous cancerous tumours in the liver. The gall-bladder was full of pus, and its mucous membrane inflamed. The cystic duct seems to have been closed. The hepatic duct was very large and full of bile. The common duct exhibited nothing unusual. There was recently effused lymph on the surface of the peritoneum, and the mucous membrane in the large end of the stomach was softened. No other marks of disease are noticed.

"Inflammation of the gall-bladder, whether catarrhal or suppurative, seldom, perhaps, proves fatal of itself, except when the cystic duct is closed, and the gall-bladder converted into an abscess. When it is the sole disease, and the ducts are open, so that the matter can escape, the patient may, perhaps, recover perfectly, or may survive with the gall-bladder more or less changed in structure. I have twice found the gall-bladder and cystic duct contracted, and their coats thickened, in young persons who died of other diseases, and in whom there were no gall-stones, nor any trace of inflammation of the common or hepatic ducts, or of the capsule or substance of the liver."

"*Croupal* or *plastic* inflammation of the mucous membrane of the gall-bladder and ducts is very rare. Rokitsky says he has observed it in the ducts within the liver, in what has



been called the secondary fever of cholera, and as a sequel of ordinary typhoid fever. It produces within the gall-ducts membranous tubes, in which the bile forms tree-like concretions; and this again, by blocking up the passage, causes distension of the capillary ducts behind."

"*Ulceration* of the gall-bladder is much more common than the forms of inflammation yet considered, and occurs in various circumstances."

"Sir G. Blane, in his account of the Walcheren fever, states that the mucous membrane of the gall bladder was frequently found inflamed and ulcerated; the ulcers having in some cases the conical or tubercular form sometimes seen in dysentery. The gall bladder was generally distended with bile, which, in those persons who died early, was of a deep green or dark brown, but in more protracted cases had the consistence and colour of tar. This tar-like fluid did not taste bitter like bile, and when mixed with water did not impart any yellowness to it, while it was often so acrid as to excoriate the lip."

"The acrid quality of the bile in the Walcheren fever, and the circumstance that in Dr. Boyle's dissections, the strongest marks of inflammation in the intestinal canal were about the entrance of the common duct into the duodenum, render it probable that the inflammation of the gall-bladder and duodenum, in remittent fever, is caused by irritating bile. As in typhoid fever, the symptoms of inflammation of the gall-bladder are not distinguishable in the midst of the general disorder that constitutes the fever, and the symptoms of inflammation of other parts that likewise occur in its course.

"In this country, ulceration of the gall-bladder is produced perhaps not unfrequently by the irritation of gall-stones.

"Ulceration of the gall-bladder and gall stones are often found together, but we must not infer in all such cases, that the ulcers were produced by the gall-stones. Both the ulcers and the gall-stones may have resulted from the presence of bile of unnatural quality.

"When there is only one ulcer in the bladder, and a large or hard gall-stone is found resting upon it, we may perhaps safely infer that the mechanical irritation of the gall-stone was the cause of the ulcer. Gall-stones too large to pass through the cystic duct, not unfrequently cause ulceration of the lower or depending part of the gall-bladder; lymph is poured out on the peritoneal coat below the ulcer; the gall-bladder becomes united by this means to the duodenum or colon; the ulcer eats likewise through the coats of the intestine, at this point; and the gall-stone escapes into the intestinal canal. The processes of ulceration and adhesion take place very slowly,—and are seldom attended by alarming symptoms. Often, indeed, the first clear intimation that such an event

has happened, is the discharge of a large gall-stone from the bowels.

"In other cases, we find many small round ulcers in the gall-bladder, and perhaps in the common duct, and small gall-stones in the bladder not resting on the ulcers. When it is considered that most human gall-stones are so light as to float in bile—since they almost float in water, which is of much lower specific gravity—and that, consequently, they can exert no pressure on the coats of the gall-bladder from their *weight*, when there is bile enough in the bladder to keep them afloat;—it seems most reasonable to refer both ulcers and gall-stones in these to an unhealthy state of the bile."

"Ulceration of the gall-bladder and ducts may lead to various results.

"1st. An ulcer, commencing in the mucous membrane of the gall-bladder or of the common duct, may eat through its different coats until the peritoneal coat is laid bare. The bile, brought in contact with this coat, causes it to slough, and the contents of the gall-bladder are poured suddenly into the cavity of the peritoneum. When this happens, diffuse suppurative inflammation of the peritoneum is set up, which destroys life in a few hours—quicker, perhaps, in most cases, than the peritonitis that follows rupture of the bowels."

"2d. When an ulcer of the bladder or ducts is caused by a gall-stone, adhesive inflammation of the serous membrane is usually set up before perforation takes place; the gall-bladder or duct becomes united to some adjacent part, generally the duodenum or colon; the coats of the intestine are eaten through after those of the gall-bladder or duct; and the gall-stone passes into the intestinal canal."

"3d. Ulceration of the gall-bladder or ducts, like ulceration of other mucous surfaces that return their blood to the portal vein, may lead to scattered abscesses in the substance of the liver."

"The abscesses are probably the immediate consequence of suppurative inflammation of a small vein in the vicinity of the ulcer, or of the absorption of the ichorous matter of the ulcer."

"Closure of the *cystic* duct destroys the office of the gall-bladder, and leads to various changes in it, which depend chiefly on the length of time the duct has been closed, and on the previous condition of the gall-bladder."

"When the cystic duct is closed by adhesive inflammation of the capsule of the liver, and the coats of the gall-bladder were previously healthy, the bile in the gall-bladder is absorbed, and its place is soon occupied by a glairy fluid, of the consistence of mucus or synovia, and not at all tinged, or but very slightly tinged with bile. After a time, this fluid is se-



creted in less abundance, and the gall-bladder contracts and shrivels; in some cases, almost to the size of an almond."

"The effects of closure of the cystic duct on digestion and the general health, are much less serious than might have been expected, and sometimes are of very little import."

"Closure of the *common* duct has far more serious effects.

"The most immediate of these, are deep jaundice, dilatation of the gall-bladder and hepatic ducts, and retention of bile in the lobular substance of the liver, which acquires in consequence a deep olive colour. By the retention of bile, the liver at first grows larger, but its increase of size from this cause is, perhaps, never very great. Subsequently, from atrophy of the lobular substance, it shrinks again, and, in the end, notwithstanding the dilatation of the gall-ducts, becomes much smaller than in health.

"If the closure of the common duct occur suddenly, the gall-bladder, or one of the ducts behind the obstruction, may be distended so rapidly as to burst. Several cases of this kind are recorded."

"The ultimate effect of closure of the common duct on the *lobular substance* of the liver, is very remarkable. The cells which go to form this substance, and which secrete the bile, are destroyed; the capillary vessels of the lobules, which minister to secretion, their office gone, waste; the liver shrinks and no longer presents an appearance of lobules, and its office is no longer in any degree performed."

"In the *treatment* of inflammation of the gall-bladder and ducts, a most important principle is the early employment of local depletion. Leeches, as was seen distinctly enough in some of the cases that have been related, relieve the pain and tenderness, and no doubt mitigate the inflammation, and, in consequence, lessen the danger of perforation and of permanent closure of the ducts."

"Blisters have the same kind of efficacy as leeches. Like these, they often relieve the pain and tenderness in a striking manner, and therefore, we may infer, tend also to prevent permanent changes of structure. The proper time for blistering is when the pain and fever have abated under leeches and other measures, and it is no longer deemed advisable to take away blood.

"Another important principle in the treatment of these cases, is the strict enforcement of a plain and appropriate diet. As a particular point in the diet to be observed, the free use of diluents may have some advantages. While, by filling the stomach, they help to empty the gall-bladder by their pressure, it is also probable that, after absorption, they pass out of the circulation again, in part by the liver, and thus dilute the bile.

"In certain cases of the class now under consideration, the

judicious use of mercury is attended with signal good effects. It probably acts beneficially in two ways:—1st, by increasing the quantity and by promoting the flow of bile; and, 2d, by producing changes in its quality which render it less irritating. These are the objects that determine the principles of its administration in these cases, in which the desired effect is best obtained, not by the more powerful and constitutional action of the drug,—which should be studiously avoided,—but by the occasional administration of its milder preparations, repeated as need may be. It is to the striking benefit sometimes derived from mercury used in this way, that this medicine owes the reputation it has long had as a remedy in liver diseases.

“Soda is another medicine much in use in the treatment of these cases, and there is reason to believe that it deserves the esteem in which it is generally held. Physiological considerations would lead us to suppose that it is best suited to cases of catarrhal inflammation of the ducts. As soda is a natural constituent of bile, and is therefore,—we may infer,—readily excreted by the liver, it probably renders the secretion from the ducts less viscid, and has the same sort of efficacy in these cases as in catarrhal diseases of the lungs, in which this and other alkalies have been long used as expectorants.”

“Having considered the inflammatory diseases of the liver,” the author next passes to the consideration of “diseases, in which, seemingly without inflammation, the secreting power or the nutrition of the hepatic cells and other tissues of the liver, is seriously disordered.

“These diseases may be divided into two principal groups. One of these groups is characterised by suspension of the secretion of bile. The principal feature of the other is, that the hepatic cells separate from the blood, some abnormal matter, which, instead of passing freely out of the liver in the bile, is retained there, adding to the size of the liver, and more or less changing its appearance and texture.”

“The most remarkable and most serious change is, where the cells are completely broken down and destroyed. It has been seen that this may result from long retention of the secreted bile from closure of the common duct. In consequence of this the hepatic gall-ducts become enormously dilated, and the whole liver acquires a deep olive colour. Its tissue is flabby, but not readily broken down by the finger, and *presents no appearance of lobules*. Every part of the liver is affected alike, and exhibits under the microscope nothing but free oil-globules and irregular particles of solid biliary matter. The



liver contains but little blood, and partly from this, but chiefly from loss of the cells, it may be smaller than in health, and its surface wrinkled, notwithstanding the biliary matter accumulated in it.

“But destruction of the hepatic cells may take place rapidly without any obstruction of the gall-ducts and instead of being consequent on jaundice, may be the cause of jaundice that proves rapidly fatal, apparently from disorder of the functions of the brain.

“It has been long known that cases of jaundice now and then occur which prove fatal in this way; and that in such cases it frequently happens that no obstruction can be found in the gall-ducts,—which are pale and empty of bile,—and no effusions characteristic of inflammation in any part of the liver. In some such cases, no change of structure has been remarked in the liver, and the disease has been described as fatal jaundice from suppressed secretion. In other cases, the liver has been found unusually small, and much softened, and changed in colour, and the disease has been spoken of as *softening* of the liver, or *simple softening* or *black softening*, according to the colour of the liver in the individual case.”

“It would seem that this suspension of the secreting process and disorganization of the liver, may result from powerful and depressing emotions; but that it is far more frequently produced by some poison, introduced from without, or generated in the body by faulty assimilation or digestion. It appears, too, that various poisons,—pus, the poison of serpents, perhaps the poison of some forms of fever, and various others,—may alike stop the secretion of the liver, and lead to the same kind of disorganization of its structure, while their other effects on the system are very different.”

It has already been stated, that the size, color and firmness of the liver may be changed without the intervention of inflammation, and without any destruction of its cells, simply from matter being secreted in undue quantity, which, instead of passing off freely in the bile, is retained in the substance of the organ.

The most common disease of this class is fatty liver, or fatty degeneration of the liver.

In every human liver, there are always deposited in the secreting cells, small quantities of oil or fat.

“In the fatty liver, the quantity of oil so placed is enormously increased. The hepatic cells are gorged with large globules, which greatly distend them, and often obscure their nuclei.”

“A liver that has undergone the fatty degeneration, may be little altered in shape, but it is larger, and paler, and softer, and more greasy than natural. These changes in its sensible qualities depend chiefly, if not solely, on the interstitial deposit of the oil-globules, and their degree may give us some estimate of the quantity of oil the liver contains. When this is very large, the liver is large in proportion, sometimes twice its natural size, and is generally somewhat altered in shape, being thicker than natural, and having its edges blunter or more rounded. The capsule of the liver is stretched and smooth, and when divided its edges recede. The tissue of the liver is pale, and, generally, throughout of a soft buff colour, dotted with brown or red. The brown or red dots mark the centres of the lobules, which are unusually large and distinct, and are buff-coloured near their margins. The liver is very soft, and greases the hands, or the scalpel, like common fat.

“When the quantity of oil is less, the liver is not so large, nor so pale, nor so soft,—but presents an appearance described as the nutmeg-liver. The liver may not feel greasy, but an unusual quantity of fat may be at once detected by placing a thin slice of the liver on a piece of paper, and exposing it to the action of heat. Some of the oil or fat exudes, and greases the paper. The best way, however, of ascertaining the quantity of fat—at least that which exists in the form of oil-globules—is by examining a small particle of the liver through the microscope. The oil-globules are objects of sight, and from their form and their dark outline, are at once distinguished.”

“An accumulation of fat in the hepatic cells, notwithstanding it so changes the appearance and other sensible qualities of the liver, seems not to interfere much with its office. There is no jaundice; no congestion of the veins that feed the vena portæ,—no obstruction, therefore, to the circulation through the liver; no pain, or even tenderness. The only inconvenience the patient suffers from this condition of the liver, is that which arises from the bulk of the organ,—distension of the belly, and a sense of fullness and weight, on turning in bed from the right side to the left. The reason of their being no jaundice is, that the colouring matter of the bile is secreted, and passes off, as usual. The absence of other symptoms seems to depend on the softness of the oil-globules, and the readiness with which they change their form and yield to pressure; on their being deposited gradually and evenly, so as not to cause sudden stretching of the capsule of the liver; and on their having no tendency to excite inflammation of the capsule, or of the veins.

“The liver becomes fatty in very different states of the body.

“1st.—It is often fatty in persons who lead indolent lives,



and are at the same time gross feeders—eating largely of fatty substances, and drinking freely of spirits, but more especially of porter and other heavy malt liquors; and is then generally associated with excess of fat under the skin, and in other parts of the body in which fat is usually deposited.”

“2d.—But the liver is often found fatty in persons dead of phthisis, who, instead of being loaded with fat, are generally much wasted.

“The frequency with which the liver undergoes this change in phthisis, was, I believe, first pointed out by M. Louis, in his celebrated work on phthisis, published in 1825. M. Louis detected the fatty degeneration by the altered look and feel of the liver, in forty cases of phthisis, out of 120,—or, in one-third of the subjects he examined.”

“Fatty degeneration of the liver in such degree as to be at once recognised, is not only frequent in phthisis, but,—setting aside the persons in whom the liver is loaded with fat in common with the areolar tissue and other parts of the body in which fat is liable to be deposited,—is almost peculiar to this disease. Frequently, indeed, in subjects dead of various diseases, an unusual quantity of fat is found in the liver, which is at once discovered by the microscope, and which may be detected by a practised eye, by merely looking at the liver,—but the fatty degeneration is seldom so advanced as to be readily recognised at sight, except in persons dead of phthisis. M. Louis states, that in the course of three years he met with forty-nine instances of fatty liver, and in forty-seven of these, the patients were phthisical.

“In speculating on the cause of this peculiar tendency to accumulation of fat in the liver, in phthisis, it is important to remark, that it does not depend on tuberculous disease of the liver itself. M. Louis states, that there were no tubercles in the liver in any of the cases in which he found it fatty: and that in two cases in which there were tubercles in the liver, the liver was not fatty.”

“It has been imagined, that fatty matter accumulates in the liver in phthisis, in consequence merely of the office of the lungs being greatly and gradually interfered with—that hydrocarbonaceous matters, passing off in less quantity than natural through the lungs, are, in consequence, eliminated in larger quantity by the liver. This opinion is rendered very improbable by the circumstance, that in organic diseases of the heart, and in asthma, where the office of the lungs is not unfrequently as much interfered with as in phthisis, the liver does not become fatty. Still stronger refutation of it is afforded by the fact, noticed by Rokitansky, that fatty degeneration of the liver is found in conjunction with tuberculous disease of other organs—the mesentery, the serous membranes, the bones—when there are no tubercles in the lungs.

"These facts show that we must seek the explanation of the fatty degeneration of the liver in phthisis, in some other conditions than mere diminished function of the lungs."

"The opinion was some years ago advanced by the late Baron Larrey, that the fatty condition of the liver in these cases results from solution of the fat previously laid up in the body. He considered this opinion strongly supported by the method then employed in France to make the livers of geese fatty, and of which he gives the following account: 'To procure the large livers of geese, for the making of patties, fatted birds are confined in close cages, and then exposed to a graduated heat, being kept at the same time entirely without food, even without water. They become feverish, the fat undergoes a kind of fusion, and the liver grows enormously large. The liver is considered to be in the desired state, when the animal is *extremely wasted*, and the fever increases.'

"It is quiet clear, that, in this process, the fat which accumulates in the liver, is derived from that previously laid up in the body. It is extremely probable, that the same thing happens in phthisis, and in the other wasting diseases in which fatty degeneration of the liver occurs, in man: that in the process of wasting, the fat stored up in the body is largely taken up by the veins, so that it comes to be in excess in the blood, and is then laid hold of by the hepatic cells, which have a natural affinity for it."

"Our knowledge of the frequency of fatty degeneration of the liver in phthisis enables us often to discover it during the life of the patient. In a woman labouring under phthisis, considerable enlargement of the liver, without jaundice, or ascites, or much pain or tenderness, is evidence enough, especially when the woman has been of temperate habits, that the liver is fatty. But as this condition of the liver causes but little inconvenience in itself, and does not lead to inflammation, or to other secondary mischief, and as the disease with which it is associated is inevitably fatal, it is not an object of treatment.

"When the liver becomes fatty from gross feeding and indolent habits, the excess of fat will, doubtless, disappear from it, as from other parts, on the person adopting an opposite mode of life. If he will rise early, take active exercise, live chiefly on lean meat, with plenty of salt, and drink water—and will abstain from butter, bacon, oil, beer and other fermented drinks, and eat sparingly of sugar and potatoes—he will not only get rid of his fat, but his muscles will be better nourished, and his strength be increased."

A condition analogous to fatty liver, is sometimes met with in persons wasted by scrofulous disease, called by writers scrofulous enlargement of the liver.



"Scrofulous enlargement of the liver, like the enlargement from deposit of fat, comes on without pain of the liver, or even tenderness; a circumstance sufficiently accounted for by the gradual and even manner in which the foreign matter accumulates, and from its having no tendency to cause inflammation of the capsule of the liver, or of the veins."

"In this disease, as in the fatty liver, the secretion of bile—or, at least, of the colouring matters of bile—may go on as usual, and the complexion remain quite clear. But this is, perhaps, not so generally the case as in the fatty liver. The matter deposited in the substance of the liver being firmer, is, probably, more apt to interrupt the secretion, or the flow of the bile, and to render the complexion sallow. Dr. Graves has remarked that in persons with scrofulous enlargement of the liver, the stools are variously coloured with bile—"one part of them will be bilious, another part of them clay-coloured; they will be yellow to-day, and pale to-morrow," (Clinical Medicine, p. 566.) He infers from this, that the office of the liver is performed intermittingly; that the liver secretes bile during a certain period of the digestive process, then stops, and then secretes again."

"The *treatment*, in these cases, should have chief reference to the state of the system—the peculiar cachexy—on which the faulty secretion and large size of the liver depend.

"When the enlargement of the liver is consequent on scrofula, our chief reliance must be on warm clothing, sea-air and bathing, a light nourishing diet, comprising a liberal allowance of animal food and wine, and the preparations of iodine and iron, separate or combined.

"When the health has been broken by the combined effects of syphilis and mercury, warm clothing, a tonic regimen, iodide of potassium, nitric acid, sarsaparilla, and guaiacum, are the appropriate remedies.

"In either case, the original malady is faulty assimilation, and, if we can remedy this, we shall probably, in most cases, if not in all, remedy the unnatural condition of the liver, and other secondary ailments.

My own experience leads me to think highly of frictions with iodine ointment, long-continued, in such cases. I have several times seen an enlarged liver reduced to its natural volume by iodide of potassium and frictions with iodine, or, simply by these frictions and saline purgatives. The matter deposited in the liver does not become organized like the fibrine poured out in inflammation, and, if the general health mends, it may, in time, pass off in the bile, or be removed by absorption."

The next subjects investigated are diseases of the liver, such as, excessive and defective secretion of bile, morbid bile,

gall stones, cancer of the liver, hydatid tumors, &c.; but as these are diseases less frequent and of less importance than those previously treated of; and as we have already extended our quotations farther than we had intended; we will close with the remark, that in our opinion, this work, from Dr. Budd, is one of the best selections for the library of a western physician.

W. B. H.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE VI.

*A Manual of the Diseases of the Eye, or a Treatise on Ophthalmology.* By S. LITTELL, JR., M. D., one of the Surgeons of the Wills Hospital, Fellow of the College of Physicians of Philadelphia, etc. etc. Second edition revised and enlarged. Philadelphia: Hogan & Thompson. 1846. pp. 372. 12 mo.

Dr. Littell has, in the clearest manner, condensed in this small volume, all that is of practical value in relation to the diseases of the eye, without forfeiting its name to the title of a Manual. We can with much satisfaction commend this treatise to the favorable notice of the profession. The physician will find it eminently valuable as a book of reference, and, from the clearness of its style, it will be equally valuable to the student.

The Institution to which Dr. Littell is attached as surgeon is exclusively for the blind and lame, and this, as well as an extensive private practice in diseases of the eye, renders him entirely qualified to write on this subject.

The first edition was noticed with commendation by a British Journal of high standing, and the work was republished in London. There is a copious glossary compiled by the author and his English editor. H. S. H.

## ARTICLE VII.

*Elements of Materia Medica and Therapeutics.* By EDWARD BALLARD, M. D., London, Physician to St. Pancras Royal General Dispensary, and Medical Tutor in University College, London, and ALFRED BARING GARROD, M.D., London, Physician to the Fore Street Dispensary, and Lecturer on Materia Medica and Therapeutics in the Aldersgate School of Medicine: with additions and alterations by R. EGLESFIELD GRIFFITH, M. D. Philadelphia: Hogan & Thompson. 1846. 8 vo. pp. 516.

In this work the authors have divested their text of every thing but that which is absolutely essential.

The classification is a natural historical one, the theories of the chemical process are illustrated by diagrams.

The editor has added the more valuable indigenous plants used in Medicine, and has adapted the whole to the United States Pharmacopœia. The arrangement which has been

adopted in the description of the individual articles is systematically adhered to throughout, and the whole is written in a clear and concise manner. With the additions and emendations of the editor, it is valuable, especially as a text book for American Students. H. S. H.

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ARTICLE VIII.

*The Influence of Tropical Climates on European Constitutions.*

By JAMES JOHNSON, M.D., Physician to the late King, etc. and JAMES RANALD MARTIN, Esq., late Presidency Surgeon, and Surgeon to the Native Hospital, Calcutta. From the sixth London edition, with notes by an American Physician. New York: Samuel S. & William Wood, 261 Pearl Street. 1846. 8vo. pp. 624. (From the Publishers.)

*Five Dissertations on Fever.* By GEORGE FORDYCE, M. D., F. R. S., Fellow of the Royal College of Physicians, Senior Physician to St. Thomas' Hospital, and Reader on the Practice of Physic in London. Second American edition, with an introduction. Philadelphia: Ed. Barrington & Geo. D. Haskell. 1846. 8vo. pp. 403. (From the Publishers.)

To the merits of the former of these works it is almost unnecessary to refer, having been so long and so favorably known to the profession, as to have become part of our Classic Medical Literature; and the publishers are entitled to thanks for increasing our facilities for obtaining it. In regard to Dr. Johnson as an author, the writer of his obituary in the *Medico-Chirurgical Review*, says, "he was remarkable for a facility of composition, a felicitous, though not always a correct style, and an original vigor and raciness of observation and expression, that redeem some faults, and make his works eminently readable. He may be almost called the Cobbett of Medical Literature, the same boldness, terseness, and straight-forwardness being characteristic of the writings of both."

It is this vigor of expression, the terseness and straight-forwardness, which, added to their intrinsic value have given his writings so widely spread a popularity.

Dr. Fordyce, although not an elegant writer, expresses his thoughts clearly and forcibly.

It will be found replete with information of the most practical character, and his treatment is detailed with a profitable minuteness, the author never generalizing on this point. It also has the great merit of being the production of one whom, in addition to his vast learning, was not biased by theories but



drew his descriptions from nature, without disguising her to suit a favorite theory. The Editor, Dr. John Bell of Philadelphia, (this being the April No. of the Select Medical Library,) has added an introduction and divided the dissertations into chapters, preceded by copious contents, which, with his index, has materially increased its convenience as a book of reference. H. S. H.

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ARTICLE IX.

*A Manual of Chemistry.* By RICHARD D. HOBLIN, A. M., OXON., author of a "Dictionary of terms used in Medicine and the collateral sciences." New York: Samuel S. and William Wood, 126 Pearl street. 1846. pp. 335. (From the Publishers.)

The manual before us, is, in our opinion, one of the best yet published for the use of students just beginning the study of Chemistry.

It seems to have been the object of the author, to state all the most important facts and theories of the science, in as clear a light and in as condensed a form as possible, and, as he remarks, "to make the student acquainted with the facts which Chemistry is daily presenting to our notice; to enable him from the consideration of these facts, to contemplate the laws which regulate the economy of nature; to stimulate him to pursue the science even into its farthest recesses."

We cordially recommend the book, as well adapted to the wants of students, beginning the study of this important science. Teachers in schools and academies, will find it a most valuable text book. W. B. H.

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ARTICLE X.

*Clinical Lectures on Surgery.* Delivered at St. George's Hospital, by SIR BENJAMIN BRODIE, Bart., V. P. R. S., Sergeant Surgeon to the Queen, &c. &c. &c. Philadelphia: Lea & Blanchard. 1846. pp. 352. (From the publishers.)

Brodie's lectures have been in the course of publication, during the past year, in the "Medical News," and have thus been extensively circulated, and are now issued in a complete state. We have already, from time to time, laid before our readers extracts from them, and may have occasion to do so hereafter. The author ranks, beyond all dispute, among the first writers

at present living, and this work is full of practical instruction. No surgeon should be without it. The following observations will not be without interest to our readers:

“When you suspect that pressure on any part is so great as to be likely to occasion mortification, you can do nothing but remove the pressure. When a bandage is placed in a case of fracture, you must remove it as soon as you suspect that the swelling of the parts has made it very tight, lest mortification should follow. When a patient has been so long confined to his bed, that you expect mortification will take place, you must endeavour to guard against it. It is more easy to prevent it than to stop it when it has once begun. How, then, is this to be accomplished? If a patient lies on his back, the skin sloughs over the os sacrum; if on one side then it sloughs over the great trochanter. Endeavour, when you can manage it, to make a patient vary his posture. If he can be shifted, let him lie at one time on his back; at another on his side: nay, let him turn round, and lie occasionally on his face. If you have what they call a prone couch, properly constructed for the purpose, he may, in many instances, use it to great advantage. In one of the worst cases of this kind, when mortification had begun, I used to turn the patient on his face many hours in the day, and with perfect success. But sometimes the patient cannot be shifted. There may be fracture of the thigh, and he must lie always on his back. You must then endeavour to take off the pressure by other means—by an air cushion with a hole in the centre, the tender part over the os sacrum being in the hole of the cushion. But in all cases where you use an expedient of this kind, you should first apply a piece of common soap plaster, spread on calico, over the part, to support it. If you merely place the hole of the cushion under the os sacrum, the skin will bulge into the hole, and the patient will lie as bad as if there were no hole at all, or even worse. The same rule applies to all cases where you use contrivances to take off pressure, as in those of corns and bunions. In cases where you can have resource to it, the water-bed is very useful in preventing mortification from pressure. Dr. Arnott’s hydrostatic or water-bed diffuses the pressure everywhere. When you lie on a mattress, the pressure is thrown on all the prominent parts of the body, and little elsewhere; but in using the water-bed the water rises to fill up the hollow places, and the pressure is not greater on the sacrum than on other parts. No doubt this bed is the best method which has yet been contrived for preventing mortification from pressure—the only objection to it is, that it is not applicable to all cases. In cases of compound fracture of the thigh or leg, for example, it would not give sufficient steadiness to the injured limb.



“But another plan may be adopted to prevent mortification from pressure—that is, to prevent the inflammation which precedes it. The thicker the cuticle the more it will protect the parts beneath it. You may, if you attend to it in time, add to the thickness of the cuticle by stimulating the surface of the skin. Nurses know this very well, for when patients are bed-ridden, they wash the parts subjected to pressure with brandy. What is better, is a lotion composed of two grains of oxymuriate of mercury to an ounce of proof spirits. When you think that a patient is likely to be confined so long in bed that there may be mortification from pressure, wash the parts two or three times a day with this lotion. I have found it useful in other cases where a patient suffers from pressure. A man has a rupture which requires to be supported by a very powerful truss. It galls and frets the skin, and may at last cause inflammation and sloughing; but under the use of the lotion, a thicker cuticle is generated and this mischief is avoided.”—p. 63.

“It has been a sort of *dictum* of the schools of surgery, that you should not amputate while mortification is going on; and certainly, when there is mortification from ossified arteries (as I shall hereafter explain,) or when there is mortification from inflammation, you ought to wait for the mortification being stopped, and for the formation of a distinct line of separation, before you proceed to an operation. But it must have been palpable to every body who took the pains to consider the subject, that this rule would not apply to all cases of mortification. For example, a man has a strangulated hernia; when you open the sac you find the omentum strangulated, a part of it dead, and the mortification still extending. You would not hesitate in a case like this to cut off the dead and dying omentum. If piles were undergoing the process of mortification from being strangulated by the sphincter muscle, you would not hesitate to cut them off. You may conceive many other cases, in which the cause of mortification is local, and to which the general rule which I have just mentioned does not apply. Baron Larrey has the credit of having pointed out more distinctly than had been done before, that where there is mortification from local injury, you may venture to amputate, though the mortification is still spreading. But I apprehend that the operation must be had recourse to at once, and that the case admits of no delay. If, in consequence of local injury to a limb, mortification has begun, but has not yet produced any severe shock on the system, there you may amputate. But where the mortification has been going on for some days, so that the system has begun to be influenced by it, the pulse getting weak, perhaps intermitting, and with great prostration of strength, in such a case you must not venture to amputate. Under such circumstances it is probable that the

system is not in a state to bear the additional shock of the operation. However, I believe that cases enough may be adduced to prove that Baron Larrey's rule of not waiting to amputate till the mortification has stopped, is applicable in a great number of instances where the disease arises from local injury. It is good in theory, and there is now sufficient experience to enable us to say that it is good in practice also." —p. 66.

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ARTICLE XI.

*The Practice of Surgery.* By JAMES MILLER, F. R. S. E., Professor of Surgery in the University of Edinburgh, etc., etc. Philadelphia: Lea & Blanchard. 1846. pp. 496. (From the Publishers.)

This work is a sequel to the Principles of Surgery, of which we had occasion, some months since, to express a favorable opinion in this Journal.

Taken together they form a very condensed and complete system of Surgery not surpassed as a text book by any work with which we are acquainted, and well adapted for a book of reference for practitioners.

We subjoin the following which will exhibit the practice of Professor Miller in a case where difference of opinion exists: that of fracture of the neck of the femur *within the capsule*.

"*Union* of this fracture is quite possible, but yet improbable. The following are the more important obstacles to such an occurrence. 1. There is an obvious difficulty in maintaining accurate apposition; restraining splints cannot be applied to the part itself, and it is difficult to maintain a uniform ascendancy over the retracting muscles. If the periosteal investment remain partially entire, however, there may be little displacement, and proportionally slight shortening; and, in such a case, a better issue may be looked for. 2. There must be a want of provisional callus; there being no structure from which it may be produced, and in which it may be formed and sustained; the synovial capsule is obviously barren in this respect. The fractured ends may be said to be steeped in an increased secretion of synovia. 3. Also the definitive callus, which, if uninterrupted, might alone achieve consolidation—as happens in other fractures, when from any cause the provisional formation has been aborted—is ever liable to accident, by even slight movement of the parts. 4. The upper fragment, or head of the bone, nourished only through the round ligament, must be of weak power, and ill able to execute the exalted nutritive action necessary for rep-



aration. 5. The age of the patient, and the atrophied condition of the bone itself, are obviously unfavorable to reunion.

“With such adverse complications, it is no wonder that examples of union in this fracture are most rare. And yet circumstances may occur, in which that result may be attempted and expected, with every reasonable prospect of success. When, for example, the patient is comparatively young, when the shortening is slight, indicating but partial division of the periosteal investment, when the patient joins heartily with the surgeon in the use of means calculated to maintain apposition, and to prevent all movement of the fragments; and when neither become weary of the prolonged period of vigilance required,—for, be it remembered, provisional callus is wanting, and the definitive must do all. The ordinary result is the formation of a false joint; the parts becoming accommodated to each other by absorption, connected by new fibrous texture, and farther restrained by a thickened state of the capsular ligament; the limb remaining deformed, and comparatively powerless, yet permitting of tolerable comfort and usefulness, with the aid of a stick or crutch. In the extremely old, fatal sinking is very probable, under the shock of the injury, and the irritation of pain and confinement.

“In the last named class of patients, the use of means for effecting retention of the fragments is not expedient. Success cannot result; the annoyance will but aggravate the general disorder; and, not improbably, sloughs will form at the points where the splint exerts its pressure. It is sufficient to arrange the limb comfortably on pillows; and by very gentle swathing or deligation, to restrain motion. In the more hopeful cases, the long splint is to be applied as in treatment of the following injury.

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#### ARTICLE XII.

*A Clinical Introduction to the Practice of Auscultation and other modes of Physical Diagnosis, intended to simplify the Study of the diseases of the Lungs and Heart.* By H. M. HUGHES, M. D., Fellow of the Royal College of Physicians, &c. Philadelphia: Lea & Blanchard. 1846. pp. 270. 12 mo. (From the Publishers.)

The study and practice of auscultation and percussion is at the present day absolutely essential to every physician who would practice his profession to his own satisfaction, and afford to his patients all the relief which medical science can give. Unfortunately, but a small number of graduates in our schools are sufficiently acquainted with these means of diag-

nosis, to render them practically useful, and hence we find them either going through with these methods of exploration, where required by public opinion where they practice, without deriving from them any useful results, or neglecting them and denying their value altogether.

The reason of this state of things is obvious. It is that there are no means of becoming practically acquainted with them except by the aid of a good teacher, in a hospital. Hence, although there are at present numerous good works on the subject they are not of the value desired except to students in attendance upon hospital practice.

To such and to all desirous of possessing a simple description of the physical signs of disease, we can recommend this work. To those who desire fuller instruction in reference to the pathology of thoracic diseases, the great work of Lænnec, with notes by Andral, and that of Piorry on percussion, are to be preferred. The object of the author, which we think he has succeeded in obtaining, is thus set forth in the preface.

“That object is *not* to attempt to teach the practice of auscultation and percussion;—that, I feel assured, can be attained only at the bed-side of the patient—but it is to point out to the student the way in which he may learn it by himself. It is *not* to treat of the diagnosis of thoracic diseases; upon that I profess not here to enter; but it is to point out the physical signs of those diseases, and, as far as I am able, simply and intelligibly to explain the causes of those signs; it is to instruct the beginner in the mode, by which he is to obtain a knowledge of them, as well as to direct him how to interpret them.”

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#### ARTICLE XIII.

*Lectures on the Operations of Surgery, and on diseases and accidents requiring Operations.* By ROBERT LISTON, Esq., F. R. S., Senior Surgeon to the University College Hospital, &c. &c., with numerous additions by Thos. D. Mütter, M. D., Prof. of Surgery in Jefferson Medical College, Philadelphia, etc. etc. etc. Philadelphia: Lea & Blanchard. 1846. pp. 565. 8 vo. (From the Publishers.)

This work consists of a series of lectures published in the London Lancet, and now collected in a volume. The works of Mr. Liston are all characterized by a vigor of style and energy of thought, which taken in connexion with his boldness as a surgeon, renders them very interesting. The present work is not an exception. Scarcely any operation is declined by Mr. Liston, on account of its difficulty or severity, and this



is also true of the editor. They both join, however, in condemning the extirpation of diseased ovaria, but the data and reasons upon which these opinions rest, are, perhaps, not sufficient to set the question at rest in the minds of the profession at large.

The additions of Prof. Mütter equal in quantity the lectures themselves, and consist in a great measure of papers which have already been laid before the public, through the medium of medical journals. It were needless to say that this work contains much valuable matter; yet it is with regret that we see the medical literature of our country, assuming so entirely, as it has done of late, the form of articles for periodicals and notes to foreign works, and we hope that Prof. Mütter is not in this manner to disappoint us of his promised system of Surgery. *and the author has been very much disappointed* D. B.

## PART IV.—EDITORIALS.

## ARTICLE XIV.

## PREAMBLE AND CONSTITUTION OF THE ROCK RIVER MEDICAL SOCIETY.

The undersigned, judging from the experience of the past, believing that association for the mutual improvement and protection of the professions of Medicine and Surgery, if properly conducted, may result in the same benefits to the associated, as to Agriculture and the Mechanical Arts.

And, whereas, these professions are not protected by any legal enactments, but left, as we believe they should always be, to protect themselves, and to manage their own affairs, being willing to trust our improvement to our own exertions: We, therefore, the Physicians, Surgeons, and Apothecaries of Northern Illinois and Southern Wisconsin, do resolve to associate ourselves together as a Medical Society, and for the rule, regulation and government of the same, have adopted the following

## CONSTITUTION.

ART. 1. This Association shall be called the Rock River Medical Society.

ART. 2. All Surgeons, Physicians, and Apothecaries, within the State of Illinois and Wisconsin Territory, may become members by signing their names to this Constitution, and paying the entrance fee hereafter named.

ART. 3. The objects of this Association shall be mutual improvement in the various branches of Medical, Surgical and Pharmaceutical knowledge.

ART. 4. The Officers of the Society shall be a President, 2 Vice Presidents, a Secretary, Treasurer, and three Censors, who shall hereafter be elected on the third Tuesday in May of each year, to perform such duties as are usually performed by like officers in similar societies, said officers to act till their successors are chosen.

ART. 5. The Society shall keep a common seal, and give to its members, (signed by the President, and countersigned by the Secretary,) sealed diplomas of membership.

ART. 6. Each member shall pay fifty cents each year on the third Tuesday in May.



ART. 7. The majority of members present at any annual meeting, may make and adopt such by-laws for its regulation and government, touching the qualifications of members, medical ethics, tariff of prices, &c. &c., as the majority may from time to time think necessary.

ART. 8. This Constitution may be altered, amended or added to by a majority of the members present, at any annual meeting.

ART. 9. There shall be an annual meeting of the society on the third Tuesday in May in each year, at 1 o'clock, p. m., at such place as the society may direct, and other meetings from time to time as may be found necessary and profitable.

ART. 10. There shall be delivered before the society at its annual meeting in each year, at least two essays on some medical subjects, by members of the society, fair copies of which shall be left at the disposal of the society by the authors.

ART. 11. Reports of interesting cases may be read at any meeting of the society, copies of which shall be left at the disposal of the society.

ART. 12. Any member of the society, after being heard in his own defence, may at the annual meeting be expelled for ungentlemanly or unprofessional conduct, by a vote of two-thirds of the members present.

#### BY-LAWS.

Your committee, appointed to draft by-laws &c. for the regulation and government of the Rock-River Medical Society, respectfully beg leave to report the following:—

ART. 1. At each meeting of this society, after the members shall have been called to order by the officer whose duty it shall be to preside, the following order of proceedings shall be observed. 1st. The reading of the records of the last meeting, by the secretary. 2d. The admission of new members. 3d. Reading the treasurer's report. 4th. Reading the the president's address. 5th. Reading essays. 6th. Reports of cases, and interesting facts. 7th. Miscellaneous business. 8th. Election of officers.

ART. 2. No person shall be entitled to membership in this society, unless he produce evidence of being a graduate of some regular medical school—a licentiate of some properly constituted medical society, or pass a satisfactory examination before the board of censors of this society.

ART. 3. All debates and all other proceedings of this society shall be conducted according to parliamentary usages.

ART. 4. Eight members shall constitute a quorum, but a less number may organize to adjourn.

ART. 5. The officers of this society shall be elected by ballot, and a majority of votes shall determine the choice.

ART. 6. At every meeting of the society, the president shall appoint 2 members to read original essays on some medical subjects, at the next succeeding meeting.

ART. 7. It shall be the duty of the members to keep a record of any important cases that may occur in their practice, and all facts of peculiar interest connected with the profession of medicine, and report the same from time to time.

ART. 8. No address or paper read before the society shall be published without the consent of the author.

ART. 9. No member of this society shall be subject to a trial for misconduct, according to art. 12th of the constitution, until the secretary has given him, at least, three months notice.

ART. 10. Special meetings may be called by the President, with the concurrence of either of the Vice Presidents, whenever they may deem it necessary.

ART. 11. No money shall be drawn from the treasury without an order signed by the President and countersigned by the Secretary.

ART. 12. Any eminent medical man, residing without the limits of this society, may be elected an honorary member, by a vote of three fourths of the members present at any regular meeting.

A. M. CATLIN, M. D.,

*Chairman of the Committee.*

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### MEDICAL ETHICS.

RULE 1. It is the duty of every medical practitioner to treat his patients with steadiness, tenderness and humanity, and to make due allowances for that mental weakness which usually accompanies bodily disease. Secrecy and delicacy should be strictly observed in all cases in which they may seem to be peculiarly required.

2. The strictest observance of temperance cannot be too strongly inculcated on the minds of the practitioners of medicine and surgery; a clear and vigorous intellect and a steady



hand, being absolutely necessary to the successful practice of those branches of medical science.

3. Unfavorable prognostications should never be made in the presence of patients; yet, should there seem to be immediate danger, it becomes the duty of the medical attendant to apprise the patient's friends of that circumstance.

4. In every instance in which one physician has been called on to visit the patient of another, a consultation with the former medical attendant should be proposed. Consultation in difficult cases should always be recommended, and the physician called on for that purpose, should always pay the greatest degree of respect to the practitioner first employed, and allow him the privilege of delivering all the directions agreed upon.

5. Special consultations are sometimes wished for; in such cases, the physician called on, should carefully guard against paying another visit, unless he should be requested to continue his services by the patient, or some of his friends.

6. When one physician is called on to visit the patient of another in his absence, or during short indispositions, he should not manifest a wish to continue in attendance any longer than the physician first called on should be able to resume the charge of the case, unless a continuance of his services should be expressly wished for by the patient or his friends.

8. Theoretical discussions should not be too freely indulged in consultations, as they frequently give rise to much perplexity, without any improvement in practice.

9. The junior physician in attendance should always deliver his opinion first, the others according to seniority, and a majority should decide; but in the event of a tie, the physician first in attendance, should give the casting vote in regard to the future treatment, and to him should be intrusted the future management of the case, unless the patient or his relations should object to his being continued.

10. Although the possession of a diploma honorably acquired, furnishes presumptive evidence of professional ability and entitles its possessor to pre-eminence in the profession, yet, the want of it should not exclude practitioners of experience and sound judgment from the fellowship and respect of the regular graduate.

11. In consultations, punctuality in meeting at the same time should be strictly observed, but the physician who first arrives, should wait for a reasonable length of time for the arrival of others. A minute examination of the patient, however, should not take place until one or more of the medical attendants are present, except in cases of emergency. All subsequent visits, should if practicable, be made by mutual agreement, and no medical discussion should take place in the presence of the patient.

12. Attendance on members of the profession or their families should always be gratuitous, but should not be officiously obtruded. Should the circumstances of the medical practitioner indisposed, enable him to make a recompense for medical services rendered to himself, his wife or family, it is his duty to do so, especially if he reside at a distance.

13. When one medical practitioner is called on to visit a patient whose recovery has been despaired of by the physician first in attendance, and the disease should afterwards terminate fatally under his management, he should avoid insinuating to the friends of the deceased, that if he had been called on a day, or a few hours sooner, he could have effected a cure. Such a course of conduct is highly reprehensible, and empirical in the extreme. And, in the event of the patient's recovery, such a person should not assume all the credit, as the cure might have been partly effected by the medicines prescribed before he took charge of the case.

14. The use of nostrums and quack medicines, should be discouraged by the faculty, as degrading to the profession, injurious to the health, and often destructive of life. Should patients laboring under chronic complaints, obstinately determine to have recourse to them, a reasonable degree of indulgence should be allowed to their credulity by the physician; but it is his sacred duty to warn them of the fallacy of their expectations, and the danger of the experiment, and the necessity of strict attention to the effect produced by them, in order that their bad effects, if any, should be timely obviated.

15. No physician should, either by precept or example, contribute to the circulation of a secret nostrum, whether it be his own invention or exclusive property, or that of another. For, if it be of real value, its concealment is inconsistent with beneficence and professional liberty, and if mystery alone give



it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice.

16. In all cases where diversity of opinion and opposition of interest give rise to controversy or contention between two or more members of the profession, the decision should be referred to a sufficient number of physicians, as they are frequently the only persons in the community capable of properly estimating the merits of the dispute. But neither the subject litigated, nor the decision thereon, should be communicated to the public, as individual reputation might suffer, and the credit of the profession generally be injured.

17. A wealthy physician, or one retired from practice, should refuse to give gratuitous advice, unless the danger of the case (the absence of the practising physician) or the poverty of the patient should warrant him in so doing. In all cases where he may be preferred, he should recommend a consultation with some one engaged in active practice. This rule should be strictly observed, as a contrary course is gratuitously depriving active industry of its proper reward.

18. When a physician is called on suddenly to visit the patient of another, in consequence of some unexpected or alarming change in the symptoms, he should adopt a temporary plan of treatment suited to present circumstances. He is not warranted in interfering afterwards, unless requested to take charge of the case, when he should propose an immediate consultation with the physician previously employed.

19. Physicians should never neglect an opportunity of fortifying, and promoting the good resolutions of patients suffering under the bad effects of intemperate lives and vicious conduct; and, in order that their counsels and remonstrances may have due weight, it will readily be seen, that they should have full claim to the blameless life and high moral character, which we have stated to be a necessary pre-requisite to an honorable stand in the profession.

*Names of the Members of the Rock River Medical Society:*

George Haskell, M.D.,	17 March, 1846.	Rockford.
Samuel G. Armor, M.D.,	" " "	" "
Lucius Clark, M.D.,	" " "	" "
George Hulet, M.D.,	" " "	Winnebago co.
Charles Mandeville, M.D.,	" " "	" "

A. M. Catlin, M.D.,	17 March, 1846.	Rockford.
J. C. Goodhue, M.D.,	" " "	"
Eli Hall, M.D.,	" " "	Winnebago co.
Alden Thomas,	" " "	"
Nathan H. Palmer,	" " "	"
Wm. H. Ealer, (Apothecary)	" " "	Rockford.
C. Martin, M.D.,	18 " "	Freeport.
David Goodrich,	17 May "	Rockford.
A. E. Ames, M.D.,	19 " "	Roscoe.
A. Clark, M.D.,	" " "	Beloit, W.T.
O. Everett, M.D.,	" " "	Dixon.
C. Van Brunt,	" " "	Rockton.
Dexter G. Clark, M.D.,	" " "	Beloit.
Daniel Ransom, M.D.,	" " "	Belvidere.
W. W. Welch, M.D.,	" " "	Inlet, Lee co.
Daniel Brainard, M.D.,	" " "	Chicago.
R. S. Molony, M.D.,	" " "	Belvidere.
J. B. Nash, M.D.,	" " "	Dixon.
A. W. Benton, M.D.,	" " "	"
L. Humphrey, (Apothecary)	" " "	Beloit.
S. L. Clark, M.D.,	" " "	"
Edward Mead, M.D.,	" " "	Geneva, Ill.
Hurd, M.D.,	" " "	Byron.

Pursuant to adjournment, the Rock River Medical Society met at the Court House, in Rockford, Winnebago Co. Ill., at 1 o'clock P. M. The President, J. C. Goodhue, M. D., in the Chair; Geo. Hulet, M. D., one of the Vice Presidents, being absent, Eli Hall, M. D., was appointed Vice President, pro tem.

J. C. Goodhue, M. D., President of the Society, then delivered an address on the passed history and present prospects of the profession, in the west.

The committee appointed to report a code of by-laws and medical ethics, then made their report, which was adopted.

On motion of Geo. Haskill, M. D., it was resolved, that each member furnish the secretary with a concise account of his vouchers, place of birth, &c. &c.

On motion of Prof. Mead, it was resolved, that a committee of four be named by the Chair, whose duty shall be to report to the Society at its next meeting, the present state of the in-



sane population of Illinois: which committee was filled with the following named gentlemen; Prof. E. Mead, G. Haskill, M. D., A. Clark, M. D., and D. Martin, M. D.

After several questions of general interest to the profession, had been discussed at considerable length, without any special action on them, the Society proceeded to ballot for officers for the ensuing year; the following gentlemen received a majority of all the votes as follows, viz:

For President,	J. C. GOODHUE, M. D.	
For Vice Presidents,	R. S. MOLONY, M. D.	}
	O. EVERETT, M. D.	
Secretary & Treasurer,	S. G. ARMOR, M. D.	
	G. HASKILL, M. D.	}
Censors,	J. C. GOODHUE, M. D.	
	S. G. ARMOR, M. D.	

The Chair then appointed R. S. Molony, M. D. and O. Everett, M. D., to address the Society at its next meeting.

On motion of Prof. Brainard, it was resolved, that the proceedings of this meeting, the constitution, by-laws and medical ethics, be published in the Illinois & Indiana Medical and Surgical Journal.

On motion of S. G. Armor, M. D., it was voted to procure fifty copies of the above, for the use of the Society.

On motion of W. W. Welch, M. D., it was resolved that the thanks of the Society be and are hereby tendered to Dr. Goodhue, for his able and interesting address, and that he be requested to furnish a copy, or so much of it as relates to medical quackery and medical education, to the Illinois & Indiana Medical and Surgical Journal, for publication.

The President then requested Prof. Brainard, to deliver an address before the Society at 7 o'clock, P. M.: at which hour Prof. Brainard addressed the Society, on the subject of the improvements in surgery, with great credit to himself, and much to the gratification of the members of the Society.

The Society then adjourned, to meet at Dixon, Lee County, Ill., at one o'clock P. M., on the third Tuesday in October, next.

SAMUEL G. ARMOR,

*Secretary R. R. M. S.*

Rockford, Winnebago Co., Ill. May 19, 1846.

## ARTICLE XV.

## DR. GOODHUE'S ADDRESS BEFORE THE ROCK RIVER MEDICAL SOCIETY.

The address of J. C. Goodhue, M.D., delivered at the first annual meeting of the Rock River Medical Society, although of a popular character, to adapt it to the audience present on the occasion, offers points of interest to every physician in this region. The Doctor was one of the earliest regular medical practitioners in this part of the country, and his remarks upon the date of the profession here, are worthy of recollection.

He says: "When I first commenced the practice of Physic and Surgery, in the then village of Chicago, in eighteen hundred and thirty three, for it was at that time but a small insulated village, about one third the present size of Rockford, there was not more than two white settlers, and not one physician within the limits over which this society proposes to extend its influence; yes, gentlemen, from Dixon to Janesville, from Freeport to Pleasant Grove, John Dixon and Stephen Mack were, as far as I am informed, the only white men who had pushed their way into this beautiful and now fertile and well settled portion of the Rock River Valley.—p. 2.

"A few moments are due to the early medical pioneers. So far as I am informed, Doctor Harmon was the first physician who settled at Chicago. There had undoubtedly been surgeons of the United States Army stationed at Fort Dearborn during the war of eighteen hundred and twelve, but Dr. Harmon was the pioneer among the medical faculty of this corner of Illinois. I am informed he still lives, and is at Naperville, in Du Page county. Dr. Kimberly was the second, and is still among the most respectable practitioners of Chicago. Doctor John T. Temple, of St. Louis, and Doctor Clark, since dead, were next. Doctors Egan, Eldridge, and myself soon followed at about the same time. This brings it to the spring of thirty-four, when a perfect flood of emigration poured in, and among them a sprinkling of medical men. Many of the early settlers of Chicago are still in the field of medicine, and engaging the confidence of the public."—p. 3.

"Within the bounds which this society propose to include, within a circuit bounded on the north by Janesville, south by Dixon, east by Pleasant Grove, and west by Freeport, Doct.



D. H. Whitney, as far as I am informed, was the first physician. He settled at Squaw Prairie, now Belvidere, as early as thirty-five or six, and has continued to reside there to the present time. Doctor George Dunbar was for a short time at Rockford, in thirty-six, and was, I believe, the second practitioner within the before named limits. Doctors Hall, Haskell and Goodrich were here at an early day, also Doctor Malony at Belvidere, Doctor White at Beloit, Doctor Van Valzeh at Freeport, and many others.”—p. 4.

In reference to the characters and motives of those early physicians we record the following, as it may be applicable to the cases of some who are coming here at present.

“Anterior to eighteen hundred and forty, nine-tenths of all the physicians who had located themselves in this region, had done so with reference to pursuing agriculture, and with the avowed intention of abandoning medical practice; most of whom, either from the necessity of the case, or from finding more truth than poetry in pounding out rails, resumed their profession, and divided their attention between farming and medicine.”—p. 4.

He does not dwell at length upon the character of the diseases or their treatment, but only alludes occasionally to these points.

“The diseases that have heretofore prevailed in the country, have been but a few from the long catalogue, and those few, easy of treatment, and requiring little variation in practice. Intermittent and remittent fevers, Diarrhoea, Dysentery, Pneumonia, will include nearly all the ills flesh has been heir to here as yet, and these in their mildest forms. This fact, alone, can account for the general good success of these farming doctors.”—p. 5.

The scope of this address embraces the whole field of the duties of the physician, his studies and his conduct, and exhibits with vigor, clearness, and at times with eloquence, the scenes he must pass through, and the character he should sustain as a member of a time honored and liberal profession. It portrays in its true colors, all modern forms of quackery. The sentiments of it were heartily responded to by the members of the society, in such a manner as to show that they were heartily approved, and to indicate that among all the changes to which we are subjected, there still remains among

the working men of the medical profession, a little of the good old spirit, felt and transmitted by Gregory, Percival, Rush, and a crowd of worthies whose names adorn the pages of medical history.

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ARTICLE XVI.

PROSECUTION FOR MAL-PRACTICE. ARBITRATION.

John Beals,

vs.

Nathan M. Thomas.

} This was an action for damages in the Circuit Court of Kalamazoo, Mich., which had once been brought to trial before that court, the Hon. Epaphroditus Ransom, Chief Justice of the State of Michigan, presiding, when the jury returned a verdict of \$300 damages. A new trial had been granted, but at the June term it was taken out of court and referred to Dr. Zina Pitcher, of Detroit, Michigan, and Dr. Daniel Brainard, of Chicago, Ill., as arbitrators, with power to choose a third person in case of disagreement.

The arbitration was held at the Court House in Kalamazoo, June 12, 1846. The most material facts of the case were stated by the witnesses as follows: Daphne Beals, daughter of John Beals, in August, 1841, being at the time about 11 years of age, was see-sawing on a board placed across a fence, and fell, injuring her left fore-arm and elbow. Doctor Thomas was called, and by the aid of an assistant made some extension and counter extension, and other manipulations, reduced and dressed it, saying it was a fracture of one of the bones. The dressings consisted of a roller, applied from the hand to the elbow, splints with compresses on the anterior and posterior sides, secured with a roller, and the fore-arm placed in a sling across the breast, according to some witnesses, at less than a right angle with the arm. (There was some discrepancy in the testimony on this point.)

These dressings were renewed every eight days, and the forearm flexed and extended during eight weeks when they were discontinued. The arm, according to the testimony of the girl and family, being in the same state as at present.

On examining the arm it presents the following appearances:  
1st. The head of the radius can be felt with perfect distinct-



ness, and the prominence produced by its presence, seen in front of its natural position and upon the edge of the ulna. 2d. Every movement of the fore-arm and hand, flexion and extension, pronation and supination, can be completely performed. 3d. In flexion and pronation, the head of the radius returns to its natural position, but glides from it in extension and supination. 4th. Pressure upon the head of the radius also returns it, and the displacement is immediately reproduced upon removing the pressure.

Those familiar with the signs of dislocation of the head of the radius forwards, will immediately perceive that it is a case of that accident not attended by the usual symptoms. These are laid down by Sir Astley Cooper, thus: "The fore-arm is slightly bent, but cannot be brought to a right angle with the upper, nor can it be completely extended.

"When it is suddenly bent, the head of the radius strikes against the fore part of the os humeri, and produces so sudden a stop to its motion as at once to convince the surgeon that one bone strikes against the other, the hand is placed in a prone position, but neither its pronation nor supination can be completely performed.

"If the thumb be carried into the fore and upper part of the elbow joint, the head of the radius can be felt there, and if rotation of the hand be attempted, the bone will be perceived to roll; this last circumstance, and the sudden stop to the bending of the arm, are the best diagnostic marks of the injury."

Of these all but one, it will be seen, were absent in this case. The head of the bone could be felt, but when the fore arm was flexed, it did not arrest it, but striking against the os humeri feebly, it glided into its place.

From the manner of the accident the absence of all signs of fracture, taken in connexion with its present state, the arbitrators were of opinion that it was a case of dislocation, which, if reduced, had not been retained so, and they were obliged therefore to enquire what damage the plaintiff had sustained, and how far the defendant was responsible for it.

In relation to the first point we have already said that all the movements of the arm were complete, and it may be added that the muscular development of that arm (a good index of its power,) was nearly as great as in the other. It

was not a case of loss of a member from unskilfulness, still deformity, and a certain degree of inconvenience, resulted, and this, it is probable, might have been prevented, had the nature of the accident been recognized at the time.

But the accident did not present the ordinary signs, and if those only laid down by the best authorities are to be relied upon, it could not be a dislocation forward. These signs, in some cases are not present. This was a case of this kind, presenting therefore unusual difficulties, and liable to be mistaken by persons possessed of *ordinary* surgical skill. Dr. Thomas, therefore, could not be held responsible for the damage resulting from the injury, if he exercised care and diligence and ordinary skill. Care and diligence were no doubt used by the defendant in this case. He appears to be a physician of accredited skill, highly honorable character, and unpretending. According to the principles of law, as laid down by the highest authorities recently, no physician is liable for damages, if he exercises the utmost of his skill. On this head we quote the following decisions from the St. Louis Medical and Surgical Journal, for May, 1846.

“*Norfolk Lent Assizes, April 5, 1845; before Baron Parke. Gibbs vs. Tunnaley.* This was an action to recover damages for negligence and want of professional skill as a medical man, in the treatment of an injury of the arm. The Court held, “That, if, in the discharge of his duty, the physician *applied his professional skill and knowledge to the best of his ability*, then, however unfortunate the termination of the case, he was not to be visited with an action to mulct him in damages.””

“Same Assizes, *Queen vs. Raymond Gaches*, before Baron Parke; trial for manslaughter, in dragging away the womb instead of the placenta. ‘The learned Judge in summing up said, that he perfectly agreed with Lord Ellenborough, that if a medical man was to be punished for the death of a patient, whenever he used *the most skill he was possessed of*, such would be fraught with much danger. The prisoner, no doubt, at first, thought it was a simple tumor he was bringing away—that was a proof that it was an error in judgment. They might perhaps say he had a right to know; but how could a man learn without some practice? and if a man happened to make an error in judgment, was that to be considered gross ignorance, and imputed to criminal neglect? Doubtless, *if the man had known better, he would not have done so.*’

“These cases may be found at full length in the American reprint of the London Lancet, (for which they were specially



reported) for July, 1845. In the same journal, for March, 1845, pp. 267-8, we find the following additional case:

“*Midland Circuit. Forcible Inversion of the Womb; trial for Manslaughter, before Mr. Justice Patterson, who held in his charge to the jury, “That, if a person having skill and knowledge made an accidental mistake in treatment, through which the patient died, he was not guilty of manslaughter; it would be fearful if he were.”*”

Called upon to decide a case involving the rights of medical men generally, it was impossible not to remember that the same laws which render us liable to damages for ignorance, impose penalties for pursuing the study of anatomy, and that the State of Michigan, unlike the most liberal and enlightened governments of modern times, affords no sufficient protection for this branch of Science. There was but one point on which the arbitrators could not fully approve of the conduct of the defendant; it was in not advising the patient to seek the best surgical advice within her reach, in a case in which his own experience must of necessity have been limited.

On this ground, while shielding him from damages, they thought it best so to draw up their award as to avoid expressing in every respect, full approbation of the course he pursued.

#### AWARD.

The undersigned, to whom was submitted the matter in difference between John Beals and Nathan M. Thomas, having carefully examined the injured limb of Daphne Beals, and heard the testimony adduced in relation to the injury and its treatment, and the arguments of council in the cause, respectfully report to the Honorable Chief Justice of the State of Michigan, presiding over the Circuit Court of Kalamazoo County.

That they agree in the opinion, that the said injury was a dislocation of the upper end of the radius forwards not detected at the time of its occurrence, and that the defendant is therefore liable to the imputation of mal-practice, from defective anatomical knowledge.

Taking into consideration that this dislocation is one of rare occurrence, and has in several cases been found to be incapable of reduction, and that it was not in this instance attended

by the usual distinguishing signs, and was obscured by considerable swelling:

Considering farther, that the study of anatomy essential to the proper treatment of such cases, is by the laws of the State of Michigan a penitentiary offence; together with the fact, that the limb is still highly useful and may, in our opinion, be essentially improved by judicious treatment, we award that the defendant in this case, is not justly liable to any damages, and (if it belongs to the board to decide this question,) we further award that each party shall pay his own costs.

ZINA PITCHER.

DANIEL BRAINARD.

Kalamazoo, June 13, 1846.

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ARTICLE XVII.

Dr. WM. B. HERRICK, one of the editors of this Journal, has received an appointment in the Medical Staff of the U. S. Army, and is at present in Mexico. His labors for the Journal will not, however, cease: he will furnish for its pages a series of letters, embracing everything of interest which may fall under his observation in that country, whether connected directly with his duties, or relating to the medical topography of the places he visits, their advantages for medical men, &c. Should his duties require his absence during the winter, the course of anatomy in the Rush Medical College, will be given as formerly by Dr. Brainard.



## PART V.—ABSTRACTS.

## ARTICLE XVIII.

ABSTRACT OF LATE VIEWS ON SOME POINTS IN THE PHYSIOLOGY  
OF REPRODUCTION.*The analogy of Menstruation with the rut or heat of Animals.*

—Mr. Girdwood has, in the *Lancet* for December, 1844, set forth the following facts, established by observations on the dog, rabbits, cow and mare, viz: that the catamenial discharge appears in the lower animals as well as in the human female. The secretion is characterized also in them by a periodicity peculiar to each genus. It is, at least, in the higher order of mammals equally sanguineous. It attends the phenomena of rut or heat, and is microscopically and chemically more or less closely allied to that of the human female, being more similar the nearer we approach man in the scale of existence. It appears to be an increased periodic flow of the usual mucous secretions, with the addition, in the higher genera of animals, of more or less blood, which is, from its diffusion, deprived of its usual amount of coagulation. These correspond with results of the inquiries of Bischoff, Raciborski, and others.

In woman, and in female animals which exhibit the periodical discharge, it indicates the maturation of an ovum, its being on the point of discharge, and that the aptitude for conception is greatest at this period. In the human female the minute size of the ovum, and the rarity of opportunities of examining the bodies of those that have died during menstruation, render it difficult to prove this by the detection of ova; yet enough has been discovered to make the correctness of these views pretty certain.

With regard to animals, it has been proved by the experiments of Bischoff and Raciborski, that these are facts. Bischoff killed a lamb in rut for the first time, and which had never copulated, and found a Graafian vesicle ruptured in the right ovary, and an ovum in the fallopian tube of same side. He extirpated the left ovary and fallopian tube, (closing the wound by suture) of a bitch, which was the second day in heat, and apparently desirous of receiving the male, but which was prevented, and found four Graafian vesicles in the ovary

extremely turgid, but none had burst. After five days the bitch was killed; four large corpora lutea were found in the right ovary, and in the corresponding fallopian tube, four ova.

Besides this he has shown that the converse may take place. On an examination of the ovaries at as long a period as eighteen hours after coition, no ova had escaped, although spermatozoa had reached the ovaries.—*Rankin's Abstract*, part 1.

In relation to menstruation, Dr. Carpenter says: "This flux of altered blood from the lining membrane of the uterus, is not confined to the human female, as was formerly supposed, but occurs in most of the lower mammalia, in the state of heat, or periodical aptitude for procreation, at which time the ovary contains ova ready for impregnation."—*Elements of Physiology*, p. 433.

It has been urged against the identity of menstruation and the rut of animals that women are averse to sexual intercourse during the flow of the menses, whilst in animals, the male is only admitted during the period of rutting. This is answered by Bischoff and Girdwood, by considering the disinclination as the effect of habit and natural delicacy, rather than the evidence of any real disrelish, and that it is most probable that in human females, as well as in those of animals, the desire is greatest at this period, especially towards the decline of the discharge. It has been observed that bitches are languid and refuse the male during the first few days of heat, but after this they readily admit him. And this is considered analogous to the ailment of the human female in the early part of each menstrual period.—*Rankin's Abstract*, part 1.

*Spermatozoa*.—It is the opinion of Dr. Carpenter, that the spermatozoa, so called, are not animalcules, but merely cell germs, furnished with a peculiar power of motion. And that they have no more claim to a distinct animal existence, than the epithelia of mucous membrane, which has been seen in movement when separated from the body.—*Elements of Physiology*, p. 154.

Again he writes, "It is clear from the history of their development as well as other considerations, that they cannot justly be regarded in this light, and that they are analagous to the reproductive particles of plants, which, in many cases exhibit a spontaneous movement of extraordinary activity,



after they have been set free from the parent structure.”—*Op. Cit.*, p. 447.

*In what part of the Generative Apparatus of the Female, do the Spermatozoa come in contact with the Ovum to produce Impregnation.*—Dr. Charles Ritchie of Glasgow, believes that the uterus in the human subject, is the normal seat of conception, and that the discovery of spermatozoa on the ovaries of quadrupeds, *post coitum*, depends probably on their escape along the tubes, during conception, or on some accidental and rare arrangement of the mucus in their uterine ends, by which it becomes a conducting medium for the passage of the zoospermes.—*Lond. Med. Gaz.*—*From Am. Jour. Med. Sciences.* Jan. 1846.

Mr. Pouchet advocates a similar theory, and considers the observations of Bischoff and Wagner, who found live spermatozoa on the ovaries, to be incorrect. In his own experiments which were chiefly made on rabbits, he found that from the 16th to the 23d hour after copulation, live spermatozoa were constantly found in the vagina, but soon after they lost their activity, and by the 25th hour were dead. He was never able to see live spermatozoa but a very short distance up the uterine tube, and therefore believes impregnation can only occur in the uterus, or in the (uterine) mouths of the fallopian tubes.—*Rankin's Abstract*, part 1.

Dr. Carpenter is doubtful whether impregnation takes place before the ova leaves the ovarium, or after it has been received into the fallopian tubes, but regards the former as the general rule. It “being quite certain that the spermatozoa frequently if not invariably find their way to the ovary.” He does not at all refer to the question of uterine conception.—*Physiology*, p. 573.—*Elements of Physiology*, p. 456.

“Bischoff considers it to be immaterial at what part of the fallopian tubes the spermatozoa and ovum come in contact, so that they meet before the ovum has reached the uterus, impregnation is sure to take place. He states that he has clearly traced live spermatozoa to the ovaries.”—*Rankin's Abstract*, part 1.

That fertilization does take place in the ovary and fallopian tubes, is evident from the occurrence of extra uterine pregnancies. But nothing on the other hand has been adduced to prove that it does not also occur in the uterus.

## PART VI.—SELECTIONS.

1. *On the Curative Medication of Intermittent Fever.* By M. BRETONNEAU.—A sort of drunkenness, more or less painful, produced by a single and suitable dose of sulphate of quinine, repeated, if necessary, two days afterwards, suppresses for eight days *simple* intermittent fever.

In the same way, that a person who is in the habit of intoxication, we find that much wine may be taken without producing this condition; so we every day see individuals affected with ague taking great quantities of quinine, without the fever becoming suppressed, or its return being prevented.

M. Bretonneau agrees with the Jesuits who first imported cinchona, and learned how to administer it; and with Torti, who for thirty years practised in the hospital at Tours, that every sufficient dose of bark loses its febrifuge power by fractioning it, exactly as a dose of wine loses its intoxicating property by being divided.

It has been stated that the prolonged administration of many doses, whose sum altogether amounted to several efficient doses, has completely failed. M. Bretonneau has seen a quartan fever, which had resisted two ounces of bark, yield to two drachms of the same medicine; but the two drachms were given at once, while the two ounces were taken in very small quantities at a time, and during fifteen days.

Small doses, which habituate a patient to the action of cinchona, injure the beneficial results of adequate doses; they hurt the digestive apparatus, and render the febrifuge intoxication more difficult to obtain.

M. Bretonneau corroborates the statements of Sydenham and Morton—that the dose of bark which has suppressed a paroxysm, if repeated before the supposed epoch of its return will prevent it; and, moreover, the immunity thus procured may be prolonged by renewed doses exhibited at gradually lengthened intervals, until a perfect immunity from relapse becomes established. The progression recommended in the giving of these preservative doses is the following:—A second dose equal to that which suppressed the fever is to be exhibited, according to the nature of the fever, on any day from the first to the sixth interval, then to be repeated after intervals of 7, 8, 9, 10, 12, 14, 16, 18, 22, 30 days. The best time for giving each preservative dose is immediately after a light dinner; and the first dose had better be given shortly after the decline of the suppressed access, so as to be as distant as possible from the next threatened paroxysm. A relapse will render it necessary to renew the treatment from the commencement. The preservative doses should be approximated if it is found that the accesses become more frequent.



Unusual exercise, the prolonged impression of cold, indigestion, purging, &c., provoke the return of the fever which ordinarily, with the precautions indicated, does not return till spring. Occasionally, at Tours, the fever which had been suppressed, but its relapse not guarded against by the preservative treatment mentioned above, was accustomed to become renewed during twenty or thirty months.

M. Bretonneau has observed that an adequate dose of sulphate of quinine commonly produces vertigo and noises in the ears; subsequently, at a period more or less elongated from the first effect, there frequently supervenes a febrile state, which there is danger of confounding with a return of the intermittent fever. This sort of fever is of good augury. During its continuance the skin is hot, the pulse elevated, and this state corresponds to that condition of febrile reaction, which it is so very erroneous as to dread in paludial affections. With extreme sagacity, Dr. Bally discovered, in 1821, that in Paris, agues became developed in the spring, in subjects who had spent the autumn in localities where the fever prevailed. Evidence, the most irrefragable, bore out this assertion, nothing similar having been observed in persons who had not left Paris. M. Bretonneau has found, that a fever developed under these circumstance has all the tenacity prevalent in the district where it was contracted.

From fifteen to twenty grains of the sulphate of quinine, or from three or four drachms of good cinchona, suffice to suppress the fever of an adult, and to keep it suppressed during eight or nine days. Many reasons lead to the belief, that it is useful that the necessary dose should not be exceeded.

Intermittent fever is endemic in the locality where these observations have been a multitude of times repeated; and the number of fever patients admitted into the hospital has been so great, that in this establishment, previously to the discovery of quinine, 1200 lbs. of cinchona have been prescribed in the course of ten years, and since that discovery, frequently 50 oz. of sulphate of quinine have been prescribed in the pharmacy during the three months of autumn.

If a serious and unusual symptom shows itself for the second time in the course of a fever, whose paroxysms have been but little marked; if a lethargic torpor, faintings, alvine evacuations, either bilious, or like the washings of flesh, or melanic; if a severe epigastric pain, a superabundant sweat, a marble coldness, shiverings, symptoms exceeding an ordinary severity, accompanied by prostration, nearly complete abolition of the pulse; if these symptoms become developed, and prolong the paroxysm beyond the previous term of its duration, the dose should be doubled and given before the complete decline of the paroxysm—the fever has now become *pernicious*. It is necessary to guard this large dose with a

third of a grain of watery extract of opium, or four or five drops of wine of opium. If tolerance on the part of the stomach can be obtained, it will be necessary to inject the febrifuge into the rectum. The intestinal rejection is most easily retained if it produces neither a sensation of heat nor cold, if it is deposited above the second sphincter—a region less exciteable than that which is below it, if it is small in bulk, (from three to four ounces) and if made to traverse a large pipe slowly; a mixture of two drachms of powdered cinchona and a scruple of sulphate of quinine, is more easily retained than a solution of half a drachm of sulphate of quinine.

A moderately abundant and substantial diet aids powerfully the good success of preservative treatment. This is what Sydenham and Morton, one hundred and fifty years ago expressly affirmed.—*Dublin Hospital Gaz.*, Dec. 1, 1845, from *Jour. de Méd.*, par TROUSSEAU, March, 1846, in *Amer. Jour. of Med. Sciences*.

2. *Polypi of the Female Urethra*.—In our preceding number (p. 484,) will be found some interesting remarks by Dr. Lever, on the vascular growths which occur in the female urethra, an affection to which sufficient attention has not been directed. With a view of furnishing a more complete history of the disease, we shall now present a summary of an interesting thesis (*Thèses de Strasburg*, No. 129), by Dr. M. H. BAVOUX, as given in the *Archives Générales*, for September last.

In the female urethra both a mucous and vascular structure exists, and this peculiarity gives to the polypi which occur in it, a peculiar character. They possess both a mucous and vascular structure, and these two characteristic elements are never observed increasing independently of each other. On the contrary, these small bodies are constantly seen to originate from hypertrophy of the mucous membrane, into which numerous vessels from the subjacent erectile tissue are prolonged, so that of all the species of polypi described by authors, those which, in a descriptive point of view, approach nearest to these tumors of the urethra, are, without doubt, the fungoid species; with this distinction, however, that these polypi rarely, and as it were exceptionally, degenerate.

Polypi of the urethra very rarely occur before the age of puberty, and appear to have for their cause, a too great stimulus of the genital organs. Thus the affection is more frequently met with in prostitutes than in other females. Schutzenberger has seen them occur after blennorrhagia; but, of course, frequent coitus or masturbation may act in the same manner.

The polypi sometimes project beyond the orifice of the



urethra, and lie between the large labia; they are sometimes retained within the interior of the canal; and hence the division into *external* and *internal* polypi.

*External polypi* are of much more frequent occurrence than the latter, and generally originate from the posterior wall of the canal, near the meatus urinarius, a circumstance which did not escape the observation of Boyer. At other times, however, they originate higher up, and thus remain concealed for a longer or shorter period, till by their increase or size, or the elongation of their pedicle, they at length protrude. Their size is seldom considerable; it varies from that of a currant to that of a large cherry, and rarely exceeds that of the latter. The pedicle is in general large as compared with that of the polypus, and decreases in size as the latter enlarges. Their shape at the commencement is very generally that of a cone; at a later period, from the increase of growth being irregular at various points, they assume a lobulated appearance. Their surface most generally is of a bright red colour; at other times it is somewhat pale, and at others of a deep red: sometimes they are entirely covered with a thin smooth epithelium; at others, this is wanting, and then they exhibit a villous fungoid aspect, similar to that of a wound in a state of suppuration. In this case, the tumour bleeds more easily when touched, is more painful, and smarts from contact with the urine. In general, polypi of the urethra causes no pain; in some cases, however, a sensation of burning, or even of extreme pain, is produced after walking, coitus, or the passage of the urine; the pain may extend to the fundus of the bladder, rectum, or uterus, so as to lead to a suspicion of disease in the latter. They are sometimes the cause of hematuria, and very often of slight hemorrhage after coitus. In some cases there is over-excitement of the genital organs; but there is rarely any difficulty in passing urine, and still more rarely incontinence of urine, even in those cases where the urethra is so much dilated as to permit the entrance of the finger. At first, their growth is pretty rapid, but after attaining the size of a bean or cherry, it becomes slower, or they remain altogether stationary. In one case in which the author saw the tumor developed, as it were, under his eyes, its commencement was marked by the rise of groups of vascular granulations on the lower wall of the meatus; these granulations become united at their base; the interstices which existed between them were filled up, and thus a polypus of the size of a pea was formed, with a tolerably large pedicle; it was excised by means of a pair of scissors. In general, polypi of the urethra are not a serious affection and may continue for an indefinite period. Spalderer, according to M. Gerdy, saw one evacuated with the urine. M. Tanchou, on the other hand, regards it as a disease very difficult to be rooted out in

adult females; but it is probable that the cases witnessed by M. T. were not cases of true polypus of the urethra.

*Internal polypi* seldom occasion any well-marked symptom which may lead to the suspicion of their existence; after attaining a certain size they make their appearance externally and then come under the description of those we have just given.

The author has traced, with great care, the differential diagnosis between polypus of the urethra, and some other affections for which it may be mistaken. The absence of accurate diagnosis is of little importance, as far as regards distinguishing it from hernia and hypertrophy, either of the mucous membrane or its folds; but the case is very different as regards introversion of the fundus of the bladder, or venereal vegetations. Introversion of the fundus of the bladder is characterized by the presence of a soft reducible tumour, of the size of a nut, and of a bright red colour; it is accompanied with severe pain and dysuria, which disappear after the introduction of a sound into the urethra. Polypi, on the other hand, are soft, indolent, irreducible tumours, which occasion no inconvenience in the excretion of the urine, and offer no obstacle to the introduction of the catheter into the urethra. An error in diagnosis between these two affections is easily committed, and if not avoided would lead to danger; more especially if excision of the tumour were attempted; but an error scarcely less unfortunate is that of mistaking polypi for venereal vegetations, not only because it throws suspicion on an otherwise innocent person, but also as subjecting her to a course of general treatment not altogether void of danger. An attentive examination of the tumour ought to remove all doubt. How, indeed, can a solitary, pediculated tumour, of a redder colour than the membrane, but having its consistence, bleeding easily, with a regular or lobulated surface, of a smooth or shreddy character, but always soft, be confounded with those small, hard, unequal projections of the size of a pin's head or a hemp seed, or with red granular excrecences, or finally, with those small flattened prolongations of the mucous membrane of the vulva, with irregular edges?

*Treatment.*—The author has never seen any good result from topical applications, (acetate of lead, for instance,) or repeated cauterizations. Pressure by means of conical bougies introduced into the urethra, as advised by Madame Boivin, has likewise appeared to him of little benefit. Removal of the tumor, either by scissors or ligature, is the only treatment he has found to be efficacious. In a case still under treatment, the tumour separated four days after the application of the ligature. Excision is more expeditious and less painful. It may be performed with a pair of curved scissors the tumour having been previously seized with a pair of for-



ceps, or a thread passed through its pedicle, so as to drag it outside the canal. In cases of internal polypus, the canal must be previously dilated, or an incision made through its walls, as performed by Varner, ere its excision can be attempted. As a matter of prudence the point of attachment of the pedicle ought to be cauterized, in order to prevent any tendency to reproduction.—*Amer. Jour. of Med. Sciences.*

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3. *Orthopedic Surgery in Europe.*—Paris, May 19th, 1846.  
To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—In Paris, during the last winter, I have found, as every medical man must find, numerous objects of deep interest; but my attention has been chiefly fixed upon subjects connected with orthopedy. Through the kindness of Messrs. Guerin, Bouvier and others, I have had many opportunities of observation in this most interesting branch of science. I have found in Guerin's wards, at the Hôpital des Enfants Malades, and at his weekly consultations, many cases of great interest. In addition to this, he has, at his own house, weekly meetings of medical gentlemen, for conversation on whatever matters of importance may have presented themselves during the week. Among the orthopedic cases at the Hospital, there were three or four in the various stages of treatment for congenital dislocation or luxation of the hip. To these I paid much attention, and watched their progress with care. Guerin's treatment and theory, in these cases, consists—Firstly, in continued extension of the limb. This is accomplished by means of a weight and pulley. There is a long, leather splint, well cushioned, applied to the leg, embracing it from the knee to the ankle. In this two rings are inserted—one for a cord which runs through a pulley at the foot of the couch, and to which is attached the weight. This is strictly and simply the course "preparatoire." By this means, in the course of a longer or shorter period, according to the nature of the case, the head of the femur gradually descends to a level with that of the sound limb. This all-important object being accomplished, the second stage of the treatment, or the process of "creusant," is commenced. A simple yet ingenious contrivance is used for this purpose; and the head of the femur in its new position is kept in almost constant action upon the acetabulum, thus excavating for itself a new socket, or rather, I should say, deepening that which we may suppose to have previously existed.

Guerin's theory in this respect is, that in no case is the cotyloid cavity entirely wanting. This he affirms as the result of his own observations on the numerous cases of congenital luxation which he has treated, but more particularly have the various *post-mortem* examinations, made either by himself or by his assistant, M. Kuhn (to whom, *post-mortem*

examinations of deformity is a subject of deep interest, and one to which he has devoted much time and attention,) confirmed him in his opinion. In every case a cavity has been found. In many cases, no doubt, it is extremely shallow, and in adults nearly obliterated, but never entirely. The patient who has been subjected to the mode of treatment of which I have been speaking, is often, after a certain length of time, permitted gradually to make use of more active exercise, and he proceeds from simply swinging the limb, to the walking stool, in which the chief part of the weight is taken from the still feeble member, and there, as the process of cure continues, he is enabled to make a free use of his own feet.

It may be, however, that before the first part of the process can be accomplished, namely, the descent of the head of the bone, the aid of tenotomy will be required. This may be termed the second class. In this case it may become necessary to divide the various muscles which by their contraction offer an opposition to our efforts. As, for example, I can recall a case in which the tendon of the two adductors, the *gluteus medius* and *minimus*, the *psoas*, the *rectus femoris*, as also (the case being complicated) the *biceps*, the external lateral ligament and the *tendo-Achilles*, were each in their turn divided. But in that class of cases, in which the depression is so extremely shallow as to render vain the attempt to secure the head of the bone in its normal position by this course of treatment, a mode more bold and active must be adopted. In these cases Guerin performs an operation, which first suggested itself to him, as the result of these more general applications of the fundamental principle upon which the operation by the subcutaneous method has taken its stand, and the more extended application of which he is the acknowledged originator. This operation resembles that which he performs for the radical cure of hernia. The head of the femur rests in all these cases on the dorsum of the ilium; the capsular ligament is of necessity much elongated, being stretched, according to the extent of the deformity, either one inch and a half, or two, or sometimes even three inches. The luxation having been reduced either by the simple means, or by division of the muscles, and the process of passive exercise, &c., having been tried without success, there being still, after a proper length of time has elapsed, a constant disposition of the bone to return to its abnormal position, slipping from its place when the slightest weight is applied to it, the operation then becomes necessary. Guerin introduces his instrument from without inward, and carries it down to the capsular ligament, which he cuts across upon a level with the upper lip of the socket. By this means effusion of coagulable lymph is produced. There is adhesion and cicatrization, with its necessary result, contraction. In fifteen days gentle passive motion is made



use of, and in time a firm ligament is formed, by which the head of the bone is held securely in its new position. Immediately after the operation a band is placed firmly round the pelvis, with a compress upon the joint. Several other cases were described to me, besides those I have seen at the Hospital, some of double, some of single congenital luxation, in which the operation has been attended with the most favorable results.

4th. There is yet another class of cases. In certain children the resistance to the means employed for producing a descent of the head of the femur, is so great as to render these efforts wholly ineffectual. What is very curious in these cases is, that in lieu of this, there is an elongation of the bone itself, by which ample compensation is made. Thus we have still the signs of dislocation on examining the hip-joint, but on comparing the two limbs we find them of the same length. There was one very fine example of this in the Hospital, affording by accurate measurement, positive proof of the occurrence of this elongation. The patient, in this case, will have, of course, a slight awkwardness in his gait, but without the usual limp. I will not leave this subject without briefly remarking that in this, as, in truth, is the case in Paris, upon almost every subject connected with medicine, there has been much controversy, and that M. Guerin and Bouvier have arrayed themselves upon opposite sides. Of course I shall not attempt to form a decided opinion until I have had a still greater number of cases presented to my view, and have had that opportunity for careful and accurate observation which private practice can alone afford.

As a curious example of the truth of the above remark, and of the thorough investigation which all things here undergo, having any connection with the science of medicine, may be cited the controversy which has been going on the past winter between MM. Velpeau and Blandier on the treatment of hydrocele, with the particulars of which you are no doubt well acquainted.

The course of treatment pursued by Messieurs Guerin and Bouvier, and by Dr. Little, of London, for the various phases of spinal disease, is the same as that employed at the Boston Orthopedic Institution, with the exception that the above-named gentlemen adopt the prone position in a somewhat greater number of cases than has been the practice in Boston. The only reason why this should not be more generally made use of in certain cases, is the wearisomeness of the position, almost entirely debarring the patient from the amusements of which the other positions admit.

In some cases no doubt this mode of treatment is very important, as in scrofulous disease with excurvation, where the anterior portion of the bodies of some of the vertebræ are in a

state of caries. Here the prone position is undoubtedly the one which affords the greatest promise of success, and should in all cases be employed where the patient can be prevailed upon to submit to it. To be used with the expectation of a favorable result, there is much minutiae to be attended to in regard to the formation of the couch, adjustment of the cushions, together with the appropriate body apparatus so arranged that while the patient is recumbent there shall be a gentle elastic pressure constantly exerted upon the protuberant part. Guerin remarks that the course pursued should be the same as that for the fracture of a limb, and that, as far as this part of the treatment is concerned, this disease should be viewed in the same light.

It is greatly to be regretted that in Paris the provision for that large class of sufferers who are afflicted with some of the various deformities which recent advances in science have so well prepared the surgeon to relieve, but who have the additional misfortune of poverty, should be so inferior and so unworthy the results which might be effected under other circumstances, and which has been brought about in private practice. From the great error which was committed in the first instance of placing the patients of this class in one of their large public hospitals, merely allotting two or three of the smaller wards to their reception, it has seemed to me impossible that in certain cases the surgeon should be able to do either himself or his patients justice. This is more especially the case in lateral curvature, and general feebleness of the muscular and nervous systems, where the all-important auxiliaries of gymnastic exercises, suited to attain the peculiar object in view, be it the development of a particular set of muscles, or the general strengthening of all the muscles, or quickening the dormant circulation and giving vigor to the debilitated nerves, must be for the most part abandoned for the want of necessary accommodations to permit that variety of exercises being made use of, which are requisite to insure complete success. How inferior must such a charity necessarily be, connected with a hospital devoted to other purposes, to one especially set apart for the purpose, be it public or private. Of those of the latter class which I have seen in Europe, that of M. Bouvier has given me the most pleasure. Of the variety and appropriateness of the arrangement to be found at this institution, I shall speak more in detail hereafter.

The couches of extension and segmoid flexion combined with suitable exercises, are the means considered the most effectual, and upon which chief reliance is to be placed, in cases of lateral curvature. As an adjunct to this, and to be used while the patient is walking, &c., these gentlemen make use of some form of spinal support for body apparatus. This consists for the most part of a modification of Tavernier's



Lever Belt, which in a number of cases is without doubt an instrument of great value.

All orthopedic surgeons agree in the necessity of spinal supports being used in some form for spinal curvatures, and for a perfect instrument of this kind, which shall unite the advantages of those we have, without their defects, is what I have sought for diligently. The best which I have seen, where the object has been to go farther than merely to afford support to the spine or staying it in the new position to which other remedies have brought it, until the feeble muscles shall have acquired power to perform their office without this aid, are those employed by Dr. Little, which are still a modification of Tavernier's, but more powerful and better adapted to a great number of cases.

In the treatment of lateral curvature there are of course many other things to be taken into consideration, particularly where there is a scrofulous diathesis, or where the general health is enfeebled. In all cases the attention of the surgeon is to be directed with much care to the less prominent symptoms. Dr. Zinck, of the Orthopedic Institution, Vienna, lays much stress on false positions during sleep, as a cause of this complaint; as, for example, lying with the head inclined toward the left side, thus checking inspiration on that side. He says that on this account the process of cure is rendered much more tedious, and he considers that patients should be watched much during their sleep, that the injury arising from these false positions may be obviated. He has found the muscles of inspiration on the left side in such cases much atrophied.

In the Royal Orthopedic Hospital, London, much reliance is placed upon the instrument to which I have referred above. This was the first orthopedic institution I visited in Europe. It is solely a charitable institution, and owes its origin to the disinterested efforts of Dr. Little, by whom it was carried to a great degree of perfection and usefulness. Mr. Tamplis is now the senior, and Mr. Lonsdale the junior surgeon. The latter gentleman has already made his appearance before the English surgical community, as the inventor of two or three surgical instruments and apparatus. One, in particular, for the fracture of the lower jaw, bids fair to be an instrument of great value.

This Institution or Hospital has accommodations for about forty patients. During the last year seventy-five patients have been admitted, of whom forty-eight have been discharged cured, and eighteen relieved. The number of out-patients is, however, very large. There are two days in the week appointed for their reception, and on these occasions from sixty to eighty patients constantly present themselves. These are for the most part different on different days, and the whole number dependent upon the institution for advice is nine hun-

dred and sixty-nine. The whole number which have been treated at this institution since its formation, is four thousand. It is supported entirely by subscriptions, which now amount to £1917. The list is headed by Prince Albert, followed by a number of the nobility.

The treatment of club feet is a subject which is now so thoroughly understood on both sides of the water, that I need scarcely refer to it here. The chief difference consists in the form of apparatus employed. That of the model which I brought with me from Boston, is considered by Little, Guerin and others, as one of the most perfect they have seen; and, as Dr. L. observed, when speaking of the various apparatus in use, the great expense of this kind of *especial* work in London, is the only reason why this more perfect form cannot be universally adopted.

In some future communication, I shall take occasion to refer to a novel and effectual method now pursued for straightening the bent limbs of rickety children, for the diagnosis and cure of stammering in those cases which admit of a cure, and also for the treatment of some of the varieties of scrofulous diseases and of nervous debility. Until which time, I remain, Sir, Your most obedient servant,

BUCKMINSTER BROWN.

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4. *Hospital Necker.*—*Clinical Lectures on Diarrhœa of Infants.*—By Professor TROUSSEAU.—The influence of the change of seasons is very strongly felt in hospitals destined to infants. During the course of the winter a numerous series of pulmonary and cephalic disorders has passed before us; we are entering now into spring, and the coming heat will bring with it intestinal affections. Soon, perhaps, you will not in one month meet, in these wards, with a single case of pneumonia, twelve or fifteen cases of which were admitted during every month of the winter. Thoracic diseases will be replaced by abdominal symptoms, and amongst these diarrhœa being the most frequent, the most difficult to treat properly, and the least understood, we will endeavour to prepare you beforehand for its observation by some remarks upon its pathology and treatment. The subject is extremely difficult, and although I have for eight years devoted myself to a daily study of the maladies of infancy, I feel myself in the dark with regard to many of its details, and do not therefore pretend to give you a completely satisfactory description, but merely to impart the little I do know of the matter. In order to introduce some regularity in the following remarks, we deem it necessary to establish a practical division between the various sorts of diarrhœa which are observed in children. We acknowledge only four primary forms of diarrhœa. 1, bilious diarrhœa; 2, mucous diarrhœa; 3, linteric diarrhœa; and 4,



choleric form diarrhœa, or cholera infantilis. These forms are perfectly distinct from each other, and all the varieties of diarrhœa which may be observed in children, and which do not seem at first to have a place in our classification, will be found to consist of combinations of several of these original forms, or of deviations from these elementary types.

*Causes.*—Bilious diarrhœa may consist in a simple increase of the biliary and pancreatic secretions, or in a perversion of their qualities. Both may result from local irritation, but the first is often produced by mere physiological excitement. We will find a double illustration of these pathogenic influences, in the abundant flow of saliva determined by stimulation of the mouth with mercury, and in the increase of the secretion of tears caused by sorrow. Thus, slight inflammation of the stomach or duodenum will occasion a discharge of bile into the intestine; thus fear, anger, nervous excitement, in a word, will produce an increase of the biliary, pancreatic, and sometimes the renal secretions. We may say we meet with daily examples of the great power of physiological stimuli on the conglomerated glands. The diarrhœa of the young soldier who goes into action for the first time, is another common instance of the same kind, a further illustration of which we find in the influence of dreams on the spermatic organs. Violent exercise, abundant perspiration in many persons bring on diarrhœa. In the water-cure, a method of treatment too advantageous in some diseases to be entirely left to quacks, we find that during the process of packing, if the patient is made to drink several tumblers of water, abundant perspiration is thrown out, but if diaphoresis does not appear, the mucous surface of the intestine substitutes its action to that of the skin, and relieves the system by diarrhœa. One of the most frequent causes of diarrhœa will be found to reside in the quality of the food. The presence of globules of colostrum in the nurse's milk, due, as *Donné* has proved, to latent irritation of the mamma, sudden weaning, the exhibition of improper food, are all circumstances by which diarrhœa may be occasioned in the infant. The habit of covering the child in bed with too warm clothing, is also a frequent cause of disease. This is unfortunately a habit very prevalent among the lower classes in this country. So many as four blankets are thrown over the child, who is besides enveloped in swaddling clothes; and to add to the child's comfort, the mother not unfrequently adds her pillow to his other clothing. Abundant perspiration is thus produced, and, without any regard for the consequences, the child is extracted from his bed to be suckled or cleaned, thus being exposed several times a day to sudden changes of temperature, the result of which is pulmonary disease in winter, and intestinal derangement in summer.

*Semeiology.*—Bilious diarrhœa generally follows slight fever-

ishness, and is often preceded or accompanied by vomiting. The mouth is bitter, the tongue foul, and the appetite absent. The colour of the motion varies from yellow to green, according as the biliary secretion is changed in its quality, or only increased in quantity. Its duration is from three to six days, and its termination favorable, unless the case is mismanaged. It is in fact a slight catarrhal condition of the mucous surface. Mucous diarrhœa is marked by the discharge of a new secretion from the bowels; it is often the consequence of the first variety of disease, or of indigestion. The nutriment acts as a foreign body upon the intestine, producing local irritation, and the excretion of a slimy mucus. This is a very common, and fortunately not very dangerous form. But when the irritation of the digestive tube is carried beyond certain limits, matters take a more serious aspect; enteritis sets in, and the products of inflammation are passed with the motions. Colitis occasionally makes its appearance, attended with intense pain, betrayed by cries uttered two or three minutes before the motions, with which a small quantity of blood is sometimes mixed, the dejections assuming a dysenteric character. When the small intestine alone is inflamed, our third form of diarrhœa, lientery, appears. In this variety the food passes unaltered through the digestive organs, and is recognisable in the dejections, in which grains of rice, vegetable substances, curdled milk, can be readily distinguished. This is an extremely dangerous derangement, on account of the impossibility of refection.

After one of the above kinds of diarrhœa, occasionally without them, the cholera of children—that almost invariably fatal affection—is observed to show itself. After dejections of a bilious or mucous character, the infant is suddenly seized with violent vomiting, against which the efforts of art remain unavailable. A watery diarrhœa of a greenish hue is at the same time discharged from the bowels, and alarming general symptoms are noticed. The eyes sink in the orbits, the features are decomposed, the complexion becomes livid, and the nose, tongue, extremities, and even the breath, grow cold; the cry is acute, small, and incessant; the skin loses its elasticity, and when pinched in any part of the body, retains the folds made by the fingers, as if it were but an inert membrane. The child is sleepless, but without convulsions. Such are the first symptoms of this formidable malady. In its second period the vomiting, and sometimes the diarrhœa, cease, but no amendment follows. The collapse increases, and the infant almost invariably dies. We have, however, occasionally had the consolation of saving some few cases; one is at present in the wards, to whose case we called your attention, and who owes his recovery, under Providence, to the double tartrate of soda and potass.



*Treatment.*—We have found few drugs of any avail in the treatment of the bilious diarrhœa in children. It is a convenient plan to call the disease a gastro-enteritis, because the denomination leads to an invariable line of treatment, accessible to understandings of the meanest capacity. We take, however, a different view of diagnosis generally, and deem it unprofitable unless it leads to some practically useful indication. Some forms of diarrhœa are doubtless less difficult of cure than others, but we must say that the varieties we have described often combine with each other, so as to cause the practitioner no small embarrassment, and to reduce him, in many cases, to a blindfold empiricism; not but that we profess much respect for that empiricism which teaches us to exhibit mercury in syphilis, steel in anemia, and bark in ague; but the empiricism we deprecate as a contemptible method, is that which is not guided by diagnosis. The method we refer to may become a useful guide to the detection of the nature of disease, and it then acquires a considerable degree of utility. Let us remind you of a case of hemicrania at present in the wards. The attacks were periodical, and we tried sulphate of quinine without success; thus acquiring the knowledge that it was not governed by miasmatic influence. We exhibited then mercurial preparations, and the nervous headache having yielded at once, we were led to attribute the disease to syphilis. This is the empirical method we adopt; it is not the empiricism of *experiment*, but of *experience*. Thus, if we say that a patient is affected with neuralgia, we express a diagnostic opinion which is as elementary, and, let us add, as useless, as to say that he is affected with a corn on his foot; but it is quite another sort of thing to say that the patient is labouring under gouty, syphilitic, miasmatic, rheumatic, or chlorotic neuralgia, because this kind of diagnosis leads us to the real therapeutic indications. To return to the treatment of diarrhœa: Let us not forget that, to arrest the superabundant intestinal secretion is not by any means to cure the complaint which caused it. It is our opinion that bilious diarrhœa is only a very superficial catarrhal derangement of the intestine. The most efficient treatment consists in the exhibition of neutral salts, such as the double tartrate of potass and soda, phosphate of soda, Epsom or Glauber salts. We do not wish you to understand that we recommend the use of purgatives. No; castor oil and magnesia, or manna, you will usually find unsuccessful, whereas the neutral salts generally produce a speedy amendment. We have also derived benefit from the exhibition of the pulv. ipecac., at doses varying from two to ten grains, and mixed with a little jam, milk, or simple syrup. The action of this medicine is threefold; it is a substitutive, a discutient, and being a diaphoretic deviates towards the skin those vital energies which are occupied in the production of

morbid symptoms in the alimentary canal. But when the bilious diarrhœa is the consequence of mere nervous excitement—when it is caused by fear or anger, as tears by grief, or salivation by appetite—opium gives relief in a very short time. In these cases, which you will find to be characterised by the absence of any sort of suffering during the first twenty-four or thirty-six hours, the disease will speedily yield to the influence of hypnotic medicines. Half a drop of Sydenham's laudanum is a sufficient dose for a child under six months; others, it is true, will bear two or three drops, but that dose is too powerful a narcotic for the many. The laudanum should be dissolved in an ounce mixture, whereof the patient shall take a teaspoonful every three or four hours; but when the disorder has lasted beyond the specified time, opium ceases to possess its salutary effect, because the mere presence of the increased secretions on the mucous surface has sufficed to bring on an irritation which did not exist at first. Then we must again have recourse to neutral salts.

In mucous diarrhœa we have generally derived benefit from three sources: saline purgatives, calomel, and rhubarb. The dose of calomel we recommended is one-fifth of a grain daily, mixed with half a drachm of sugar. This should be continued two or three days at furthest. As to rhubarb, it is the "syrup" we use, the so-called "sirop de chicorée"—a good preparation in everything but its absurd name, which insinuates the idea of the efficacy of the endive, which is on the contrary perfectly, inert. Great attention should be paid to the child's diet; his food, less abundant than usual, should be chosen with great care. Milk is the most proper food for young children; fecula and broth also may be given after the expiration of the first year, and the drink should be in small quantity. In the choice of food the physician must also allow himself to be guided, in a great measure, by the idiosyncrasy of the child, and the mother's remarks on the peculiarities of his appetite. —*London Medical Times.*

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5. *Quackery in New York.*—To the Editor of the Boston Medical and Surgical Journal:

SIR,—For the first time finding myself in the great emporium of everything, ycelpt the London of America, I have thought it might interest your professional readers somewhat, if I should furnish a few notes of my gleanings here in the way of quackery. From all I can see here during a brief sojourn, I should think that the population consists of two classes about equally divided, one half being employed in *making and vending* physic, and the other half in *swallowing* it; but my *penchant* is with the former moiety, among whom I have been making a tour of inspection. The better to effect my purpose I have doffed the doctor, and turned invalid, counterfeiting as



you will see, all manner of diseases, and amusing myself by visiting the quacks, and asking questions like a veritable yankee, as I am.

Soon after my arrival, I read a flaming editorial in the papers concerning a certain dentist, who, tired of the slow profits of tooth pulling, announces himself a curer of consumption, having been cured himself. You may be sure that I hastened to see this prodigy, and putting on a woe-be-gone face, obtained an interview. He is a very pale and plausible dentist, I assure you, wholly disinterested and vastly religious, as a man surely ought to be with one foot in the grave, for such a *cure* as his I would not covet, since it gave me the horrors to look at him, and especially to hear his sepulchral voice, but little above a whisper, though he tells of his wonderful cure. All I learned from him was, that he thought I had the consumption, or would be likely to have it, if I did not catch the asthma, which he said was a certain "preventative." He showed me his remedy in the shape of a tube, exactly like those used in Boston and elsewhere by deaf persons, though instead of placing one end to the ear, it is applied to the lips; and he showed me how to breath through the tube by inhaling and expelling the air, which he says affords *exercise* to the lungs, and thus cures the consumption by producing a kind of artificial asthma. He showed me a pamphlet which he benevolently gives away, and a book which he sells along with the tube for five dollars, to those able to buy it, half price to ministers, and, it is said, he gives tubes gratis to the poor. The book is mainly a reprint of the old work of Ramage, of London, entitled "Consumption Curable," which was shown up at the time in the British and Foreign Medical Review, and never before deemed worth re-publication, until this effort to revive his tube in America, after it has become a stale joke in England as the relic of the mountebank St. John Long, from whom Ramage took his cue.

As I was altogether incog., I listened with great gusto to this dentist doctor's cure, for which it seems he went to London, together with an account of the celebrated hospital of Dr. Ramage, under royal patronage, which he described to me as one of the most important public institutions in Great Britain. And he told me of the wonderful cures he had made since his return. I found he was a thorough paced homœopathist, and did not depend upon the tube alone in any case, but advised those who used it, to take the little sugar pellets of Hahnemann, and he boasted of the patronage of that school of physicians in the city, who, it seems, recognize him as a worthy coadjutor.

I need scarcely add that in our conversation he betrayed an utter ignorance of the pathology of consumption, blundering in every attempt to describe or discriminate cases, so that

I left him in amazement that any editor should so far forget himself as to admit into his columns an eulogy upon so illiterate a pretender; but I suppose it is all paid for under cover of advertisements.

I had gone but a little way from his door, before I met an old physician and friend to whom I related my rencontre with this rival of the faculty; from whom I learned that hundreds of these tubes have been bought by the dupes of this folly, and that instances of rapid fatality are known to the profession, resulting from the effort to exercise tuberculous lungs with this villainous tube. The profits of the trade, however, exceed those derived from pulling teeth.

My next visitation was paid to a celebrated advertising quack, who cures all incurable diseases by a combination of homœopathic medicines prescribed by a *sleeping partner* in the person of a lady, who, when her eyes are closed by mesmeric passes, can look into the great cavities of the body, examine minutely the several internal organs, detect the nature and seat of the malady, and direct the preparation of the infallible remedy in every case. The learned doctor has such confidence in his female associate in practice that he does not presume to give an opinion without consulting her ladyship, taking care always to mesmerize her into the somnambulic state, for the reason that she knows nothing at all when awake, but is no sooner put to sleep than she discourses like an oracle upon pathology and therapeutics; whereupon the doctor having received his *fee* for his sleeping partner's advice, is prepared for *another fee* to furnish her prescriptions to the patients. Having learned this state of facts, I retired, not being willing to wait for my turn among so many patients as I found ready to precede me, so that this "craft has great gains," and the twain are driving a profitable trade.

I now thought I would look after the galvanic tribe of quacks who are innumerable here. Electricity, galvanism, and magnetism, separately and combined, are remedial agents greatly in vogue at present among quacks. There are some who use the galvanic battery in the usual way for all cases indiscriminately; while there are others who have magnetic plaster for the outside of the body, with magnetic pills for the inside, by which they have a perpetual current of electro-magnetic fluid flowing with as much certainty and regularity as Prof. Morse's telegraph, provided the patient continues to wear the plaster and take the pills. But all these are mere pigmies compared with the celebrated professors and doctors who vend galvanic rings, bracelets and belts, together with magnetic fluids, and I contented myself with calling on the most celebrated of these. I put his rings on every finger and thumb, with his bracelets on my arms and legs, and his belt about my body, offering to buy them all *for my complaints*, provided I could feel that they



had any effect upon my nerves. But though his "fluid" was sedulously applied, I had no more evidence of the generation of galvanic influence, than though the rings had been made of wood, the bracelets of hair, and the belt of leather. He assured me that many persons were shocked to the ends of their fingers and toes by applying a single galvanic ring, and he showed me certificates of numerous cures of frightful disease which had been thus wrought. Of course he professed to be astonished at the failure upon my person, and wondered how I could be so insensible, especially as I assured him I was "nervous." I proposed that he should put on the rings himself, and tell me candidly whether he could feel any galvanism; but he declined the test, alleging that he was satisfied with witnessing their success in others, and he appealed to his profitable trade in the articles as proof of their curative powers not to be gainsayed. I declined making any purchases of the mountebank, and pursued my tour among the other quacks of the city, of which you shall hear in my next.

A PERIPATETIC AND COSMOPOLITE.

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TO READERS AND CORRESPONDENTS.

Communications are on file from Drs. Evans, Ames, Allaire and Huber.

We must ask the indulgence of our Correspondents for any omissions in the acknowledgment of works, &c. received. In consequence of the departure of Dr. Herrick some of them may have been omitted.

We have received also the following publications—

The Medical Examiner. (In Exchange.)

The Bulletin of Medical Science. (In Exchange.)

The Western Journal of Medicine & Surgery. (In Exchange.)

The Buffalo Journal, and Medical Review. (In Exchange.)

Southern Medical & Surgical Journal. (In Exchange.)

The Western Lancet & Medical Library. (In Exchange.)

The St. Louis Medical and Surgical Journal. (In Exchange.)

The Medical News and Library. (In Exchange.)

The American Journal and Library of Dental Science. (In Exchange.)

The Boston Medical and Surgical Journal. (In Exchange.)

The Missouri Medical & Surgical Journal. (In Exchange.)

The New York Medical & Surgical Reporter. (In Exchange.)

The New York Journal of Medicine and the Collateral Sciences. (In Exchange.)

Summary of the Transactions of the College of Physicians.

Annual Announcement of the Medical Department of the University of New York. Session, 1846-47.

Annual Announcement of the Jefferson Medical College, Philadelphia. Session 1846-47.

Catalogue of the Trustees, Faculty and Students of the South Carolina Medical College. Session 1845-46.

Annual Announcement of the Willoughby Medical College. Session 1846-47.

Minutes of the Proceedings of the National Medical Convention, held in the City of New York, May, 1846.

## CONTRIBUTORS TO THE ILLINOIS &amp; INDIANA MED. &amp; SURG. JOUR.

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## ADVERTISEMENT.

UNIVERSITY OF THE STATE OF NEW YORK.  
 COLLEGE OF PHYSICIANS AND SURGEONS.  
 FORTIETH SESSION,

THE Annual Course of Lectures, in the College, will be commenced on Monday November 2, 1846, and continued until March 1, 1847.

ALEXANDER H. STEVENS, M. D., President of the College, and Emeritus Professor of Clinical Surgery.

JOSEPH MATHER SMITH, M. D., Professor of the Theory and Practice of Medicine, and Clinical Medicine.

JOHN B. BEACH, M. D., Professor of Materia Medica, and Medical Jurisprudence.

JOHN TORREY, M. D., L. L. D., Professor of Chemistry, and Botany.

ROBERT WATTS, jr., M. D., Professor of Anatomy and Physiology.

WILLARD PARKER, M. D., Professor of the Principles and Practice of Surgery and Surgical Anatomy.

CHANDLER R. GILMAN, M. D., Professor of Obstetrics and the Diseases of Women and Children.

GUSTAVUS A. SABINE, M. D., Demonstrator of Anatomy.

*Fees.* Matriculation Fee, \$5. Fees for the full Course of Lectures, \$94. Demonstrator's Ticket, \$5. Graduation Fee, \$25 Board, average per week, \$3. Clinical Instruction is given at the New York Hospital daily, by the Medical Officers, (Professor Smith being one of them,) fee, \$8, per annum: at the Eye Infirmary, without fee; and about 1000 patients are annually exhibited to the Class in the College. Clinical, Obstetrical cases and Anatomical *materiel* are abundantly furnished through the respective departments.

The annual commencement is held on the second Thursday in March; there is also a semi annual examination in September. The requisites for graduation are, twenty-one years of age, three years of study, including two full courses of lectures, the last of which, must have been attended in this College, and the presentation of a Thesis on some subject connected with medical science.

During the month of October, a course of lectures will be delivered on the following subjects;

Hygiene, by Professor SMITH.

Comparative Anatomy, " Professor WATTS.

Venereal Diseases, " Professor PARKER.

Diseases of the Os and Curvix Uteri, " Professor GILMAN.

This course will be free to the *Matriculated* students of the College.

College of Physicians and Surgeons, No. 67, Crosby street, New York.

R. WATTS, jr., M. D., Secretary to the Faculty.



## ILLINOIS AND INDIANA

# MEDICAL AND SURGICAL JOURNAL.

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### PART I.—ORIGINAL COMMUNICATIONS.

#### ARTICLE I.

*Observations on Insanity, and its Treatment in Private Practice.*

By JOHN EVANS, M. D., Professor of Obs., &c., in "Rush Medical College," Chicago.

The subject of Insanity, from the number of institutions exclusively devoted to its treatment, and of those engaged in its investigation, has almost become a separate branch of medical science. This tends to two opposite results; the one of great utility, and the other prejudicial to the best interests of the insane. From the devotion of a large body of able physicians to the investigation of the pathology and treatment of the disease, important discoveries have been made, and almost a complete reformation in the treatment of the disease, and in public opinion has been effected. But, on the other hand, from the fact of these institutions and physicians being exclusively engaged on the subject, the great body of the profession pay much less attention to it, and are disposed to leave it entirely in the hands of hospital physicians.

While all will admit that a well regulated hospital for the insane is the proper place for their treatment, it should be remembered that many cases may be well treated and speedily restored by proper management in private practice. The insane often suffer from a want of attention to the subject of insanity, by the great body of the profession. It will not unfrequently be found that this state of things has prevented the necessary remedies from being applied, until the patient has become incurable, or has caused him at great expense and loss

of time in treatment, to be sent to some remote hospital, where, had a timely application of those means at the command of the general practitioner been resorted to, he would have been speedily restored. It is in view of this consideration, that I propose calling the attention of the profession in the west to the subject at this time, regarding it of the greatest moment here, where we are almost entirely unprovided with hospitals for the insane, and where it is entirely beyond the ability of large numbers of this unfortunate class of patients, to obtain admission into such institutions.

I shall briefly consider some of the causes, symptoms, especially of the incipient stage, and pathology, and then speak more particularly of the treatment proper to be adopted in private or general practice.

*Causes of Insanity.*—Amongst the causes that have been enumerated, may be found almost every unpleasant mental condition and physical irregularity. They may be divided into two classes: *the physical* and *the moral or mental*.

Although it is difficult to classify, yet, this will be found to present as clear a line as can be drawn. The reciprocity of the two classes of causes, may in many cases be close, as there must be physical derangement before insanity can be established, and the influence that may be exerted by moral causes, will be often productive of a train of disease before the insanity is developed. But, notwithstanding these difficulties, this is the only classification of the causes, that they will in my mind admit of, without going into long hair-splitting definitions, that would more embarrass the subject than such classifications would elucidate it.

*The physical causes*, include all those that make the primary impression from which the insanity results upon the physical man; as, when disease of the stomach has produced insanity, without any direct or powerful mental impression. There are cases which it would be difficult to determine, to which class they belong; but not more than of those for whose insanity no cause at all can be assigned,—and others that seem to be produced by both physical and moral causes.

Most of the diseases of the system have been known more or less, directly, to produce insanity; but there is a great difference in this respect, for while some but seldom have been known to have this effect, others frequently produce it.



From what has been said it is plain that an almost countless variety of physical influences may be properly considered under this head.

Amongst them are climate, varieties in the species, seasons, intemperance, modes of life, errors in education, age, temperament, injuries of the head, sudden arrest of perspiration, healing of issues, metallic influences, disorders of the menses, puerperal influences, the critical period, worms in the intestines, fevers, dyspepsia, apoplexy, epilepsy, hereditary predisposition, indulgence in vicious habits, as masturbation, prostitution, &c.

*Climate*.—There is perhaps less direct influence in the production of insanity in the climate, than that that is exerted in the formation of an energetic and vigorous character, and the reverse. We find in those countries where the climate is such as to produce a languid and dull condition of the moral and physical man, as in tropical climates, insanity is less frequent; while in the temperate latitudes we find the disease much the most common. Although insanity is said to prevail to a great extent in the British East Indies, it must be recollected that the inhabitants are northern in their origin, education and habits. The following statistical table, derived from various sources, is as nearly correct as the information on the subject will enable me to make it.

TABLE No. 1.

Showing the proportion of Insanity to the population in different countries and latitudes.

Norway, bet. the 58th and 80th Deg. of N. Lat.	has insane, 1 to every	551
Scotland, " 55th " 59th " "	1 " "	563
England, " 50th " 55th " "	1 " "	793
U. States,* " 30th " 48th " "	1 " "	985
Netherlands, " 50th " 54th " "	1 " "	1050
France, " 43d " 50th " "	1 " "	1000
Italy, " 40th " 46th " "	1 " "	4879
Spain, " 36th " 44th " "	1 " "	7181

\* This is taken from the census of 1840, and includes the insane and idiotic.

While this table shows that in the higher latitudes there is a greater proportion of insanity, it must be remembered that there are many other circumstances, that have great influence in modifying the results.

Even in the United States, there are both moral and physical causes influencing the results independent of climate, but that it has an influence will be apparent from a table, made out from the census of 1840, in another part of this article.

*Varieties of the race.*—Considering the human family as divided into five varieties, it will be reasonable to expect that they will, as they are varied in character and habits, be different in their liability to insanity. While we have in reference to some of the varieties but little positive information, we are warrantable in the conclusion that the Caucasian is by far the most obnoxious to the disease. Of the Mongolian, we can only give the reports of travellers, who say that insanity is very rare in China. Of the aboriginal American we also have but little information. Baron Von Humboldt found but few cases among them, and from sources of information of a more recent date, we have nothing that in the least goes to controvert the opinion drawn from his observations. Of the Malay or South Sea Islander, we have no positive information, except from Capt. Wilkes. In a letter to Dr. Brigham, he says, “During the whole of my intercourse among the natives of the South Sea, I met with no deranged person, and I am satisfied that insanity is a disease incidental alone to civilized life. I am confident that had any instances of mental derangement among the natives occurred, it would have been observed by us.”

By an estimate of the number of insane among the blacks, of course including mulattoes and all other degrees of the admixture of the white and black races, we find that there is in the United States, as reported in the census of 1840, one colored person insane or idiotic in every 982.

By a reference to table number 1, it will be seen that of all the inhabitants of the United States there are insane or idiotic, one in every 985, and of course the result would be but little varied if we would from the same data make out the per cent. of insane and idiotic among the white inhabitants. From all that can be learned, we are justifiable in the conclusion that the African in his native country, is almost exempt from insanity.

*Seasons.*—The only means we have of determining the influence of the seasons in causing insanity, is deduced from admissions at different seasons into the different institutions for their treatment; and it must be remembered that other circumstances have much influence in determining these results. Patients are not generally admitted at any particular period after the attack. The statistics show more admissions



during the summer months. But heat being favorable to excitement, and travelling being better during this season, may have more influence in producing the result than the periods of attack.

*Intemperance.*—This curse of our race, as in almost all other diseases, so in insanity, is found to be one of the most fruitful causes. And amongst the physical it is by far the most prolific of all others. So far as statistical information has been obtained, this is not only true of this country, but also of all others.

The immediate intoxicating effects of *ardent spirits*, are such as to lead us at once to infer that their continued influence would soon derange the mind. There is a species of derangement peculiar to drunkenness, which is not included by the definition of insanity as here treated, called *mania a potu*, of which I do not propose to speak. The remarks I make refer to insanity, strictly so called.

Intemperance in the use of *opium*, too, might be expected a priori to produce insanity. The powerful impressions made on the brain and nervous system by this drug, are such that when long continued they often result in derangement of the mind.

Intemperance in the use of *tobacco*, which also has a powerful influence over the nervous system, might be expected often to result in insanity. And in reference to it Dr. Woodward says, "that tobacco certainly produces insanity I am not able positively to observe; but that it produces a predisposition to it I am fully confident."

*Modes of life.*—As there is a marked influence exerted on man by his manner of living, both physically and mentally, some modes seem more than others favorable for the development of insanity.

Sedentary habits are destructive of that physical energy necessary to health, and are by most authors regarded as a cause of insanity. Keeping irregular hours, too, might with great propriety be noticed in this connexion; for all agree that the habit has a tendency to undermine the health, and disturb the equilibrium of the mind. In fact all excesses may be regarded as tending to produce insanity where there is a predisposition to it. Luxurious living is favorable to it, as well as a meagre diet. In proof of this, we find in Europe the

highest and lowest classes, more particularly, are liable to the disease.

*Errors in Education.*—Physical education is more necessary to the well being of the individual, than mental; for without it, he cannot enjoy health of body or vigor of intellect. Parents too often overlook this valuable truth, and hoping to make intellectual prodigies of their children, tax the mind to the utmost, while the body and limbs are left without that exercise which is so necessary to their development. And while they often succeed in inducing a precocity of mind, they lay the foundation for early disease and death; or institute an irritation in the brain to result in insanity or imbecility. The part of the system most exercised, during development especially, grows much faster than others; and by early taxing the brain, it is too rapidly developed, and disease, either in the brain or some part of the enfeebled and imperfectly developed system, is the consequence. How few of the many remarkably intelligent children, ever arrive at the age of maturity. And of those that do, how very few, realize the bright hopes predicated upon their precocity. Children, and especially those that give evidence of premature brilliancy of intellect, should not be put to study until they are so far developed, that the physical system can endure the fatigues of mental applications. Until the age of seven or eight years, the brain is exceedingly delicate in its texture, and of but little more than a fluid consistence. Is it then strange that the general practice of modern times of forming infant schools, and by other means urging the child forward in education with hot-house rapidity,—placing it under all possible excitements to induce it to apply its mind to study, should lay the foundation for disease, insanity, imbecility, or idiocy?

Again as the integrity of the mind depends upon the health and regular development of the instrument by which it acts, it is necessary that in education care should be had that the different faculties or powers, or the organs through which they act, shall be properly and regularly exercised and developed. Otherwise we cannot expect a well ballanced mind, without which there will be a predisposition to insanity. A child that is educated to a frequent indulgence of anger, while the controuling sentiments are suffered to lie dormant, will be strongly predisposed to insanity by this great error in its edu-



cation. And so with other passions and faculties—when one is inordinately developed and others neglected, it will constitute a strong predisposition to derangement of the mind.

*Age.*—The period of youth is almost entirely exempt from insanity. I saw a little boy in the N. Y. State Lunatic Asylum, last spring, about twelve years of age, who was quite deranged. But such cases are exceptions to the general rule. Dr. Earle says “such cases are extremely rare.” Dr. Rush mentions four cases of the kind, which came within his knowledge, and in St. Luke’s Hospital, England, there was an insane child of but *two years* of age. Old age is pretty well exempted too, except from senile insanity, which does not come under this head. More persons are attacked between the ages of twenty-five and forty, than at any other period in life. It is then that man acts most, and is most subjected to the reverses of fortune and vicissitudes of life, that exercise such influences in producing this disease.

*Temperament.*—The sanguine and nervous temperaments are most favorable for the development of diseases of the mind. The first on account of the impetuosity of action in the system generally peculiar to it, and the other because of its excitability. Many of our best writers say that the bilious or choleric are particularly subject to mania. There have been some curious statistics collected in reference to the color of hair, eyes, and the complexion of the insane, but as nothing definite has been made out from them, I will not trouble my readers with their perusal.

That *injuries of the head* should produce insanity, is no more strange, if they affect the brain, than that those of the eye should impair sight, or of the ear hearing. And although the brain may sustain injuries of considerable extent, without a derangement of the mind, it is stated by some of the highest authorities, that no case of the kind has occurred, where corresponding portions of the hemispheres were injured or diseased at the same time. If we admit the brain to be the organ of the mind, which few if any doubt, this is what we would expect, reasoning from analogy.

*A sudden arrest of perspiration and the healing of issues* have frequently been followed by a derangement of the mind.

*Metalic influences.*—Esquirol, after observing that persons exposed to the heat of the sun, and the fumes of charcoal, are

subject to insanity, says: "Those who are obliged to work in the midst of metallic oxyds, cooks and miners, are liable to the same attacks.

"The vapour of lead, produces in Scotland a species of insanity, in which the maniacs lacerate themselves at every opportunity, and which the Scotch peasants call Mill-reeck.

"The miners of Peru and Mexico, are subject to a peculiar form of insanity."

*Disorders of the menses, puerperal influences and the critical period.*—From the powerful influence exerted by the uterus and ovaries over the nervous system of the female, are prolific causes of insanity. Esquirol says, nearly one-twelfth of the women at the Salpêtrière, became insane after confinement.

*Worms.*—The entozoa, in consequence of the irritation they produce, and the intimate sympathy between the brain and abdominal viscerae, are often found holding a place amongst the causes of insanity.

*Fevers.*—That insanity should frequently result from fevers is reasonable, in consequence of the general morbid influence exerted by them; and the liability, not only of all the organs of the system to suffer lesions from them, but particularly in consequence of the effects of these forms of disease upon the brain itself.

I was consulted about eighteen months ago, in reference to the case of a young man, of active mind and devoted business habits, he being an extensive grazer in Illinois; who in consequence of a violent attack of remittent fever, and great anxiety in reference to his business, had become insane.

By the use of the proper remedies for the fever, prescribed by his physicians, his mind had been temporarily restored; but by too early application to his business, and a relapse of the bilious derangement of the system, his insanity returned upon him. He was early taken to an Eastern Lunatic Asylum, and was speedily restored to health.

*Dyspepsia.*—The intimate sympathy through the pneumogastric nerve, existing between the stomach and brain, and their dependence through digestion and assimilation, and the influence they exert over the circulation, would lead us to the conclusion, that disease of the stomach would exert a morbid influence over the brain, and be liable to produce insanity.



*Apoplexy.*—The violence done to the brain by this disease, is very liable to result in insanity.

*Epilepsy.*—This is a very common cause of insanity of the most deplorable character. The insanity assumes peculiar forms; generally being most violent after the attacks of epilepsy, and either moderating or entirely subsiding in a longer or shorter time after the convulsions. This is one of the most hopelessly incurable forms of the disease. When once established, seldom giving way to any form of treatment.

*Hereditary predisposition, or conformation.*—That there is a liability in the progeny of parents affected with insanity, to the disease, is proved by a long train of observations, which have been handed down to us by the highest authorities.

In this cause of, or predisposition to insanity, we find many curious facts. Esquirol says the taint in the system is oftener transmitted from the mother than the father.

It has often been remarked that those hereditarily predisposed to insanity of the same family, are often attacked with it at the same period in life. Burton says that children of aged parents are predisposed to melancholy. "Children who are born before their parents become insane," says Esquirol, "are less liable to mental alienation than those whose birth takes place afterward." The same is true of those who are born of parents who are insane only on the paternal or maternal side, compared with those both of whose parents are insane."

There is generally great similarity in the symptoms in those who become insane of the same family.

In addition to the hereditary influence predisposing to insanity, there is an acquired peculiarity of constitution, which favors the development of this disease. Pritchard thinks this obtains in all cases of insanity where there is no hereditary taint.

*Vicious habits, Masturbation, Prostitution, &c.*—By looking over the reports of the American institutions for the insane, I was surprised at finding such a large number of cases reported as being caused by masturbation. This cause is almost entirely confined to males; a few females only, being reported under this head. Esquirol says it is because women are more reserved than men. There is, I apprehend, great uncertainty in reference to the amount of insanity caused by

this *secret* vice, as many may become addicted to it after insanity supervenes. Those addicted to the vice, whether causing the insanity or not, are in consequence of it difficult of cure.

From the diseases prostitution is liable and almost certain to induce, not only in the organs of generation but of the general system, it is worthy of a place amongst the physical causes; yet there is no doubt of the powerful moral or mental influence excited by the degradation which is a necessary attendant upon it.

Esquirol says: "One twentieth of the alienated admitted at the Salpêtrière, have been prostitutes. The proportion is much larger in Paris than in any other place.

#### MORAL CAUSES.

Although as before remarked, physical disease or malformation, is necessary to insanity, it is found that much the larger number of cases can be traced, as an immediate cause, to moral or mental influences. These seem most frequently to coöperate with physical disease, (which is the only actual disease,) in the production of mental derangement.

Those conditions and influences that, by producing an excitement of the mind, predispose to, and cause insanity, like the physical derangements of the system, are so numerous that it would be tedious to enumerate them. A few of the most common of these may be considered under the heads of—the moral condition, the social and intellectual condition, the political and religious condition, war, the civil state, disappointed love, domestic troubles, grief, jealousy, anger, fright, fanaticism, reverses of fortune, disappointed ambition, mortified pride, excessive study, &c.

*The moral condition* of a people has much to do in the production and prevention of insanity. It is found that in those countries where the people are addicted to vicious habits,—other things being equally favorable—they are much more subject to mental alienation, than where a more wholesome state of moral feeling, and virtuous living are found. And why should we expect it to be otherwise? Does not vice lead to the excesses that derange the general health? And is it not the foundation and source of all misery? Then, as a people are vicious, will they be exposed to more physical disease, and more of the evil inclinations and propensities of



the heart, which produce sorrow and woe, will influence their lives, and in the train of miseries will often be found insanity. It may be that from this fact, originated the idea that the insane are "possessed"—that they are under the influence of the "evil one," for when it originates in vice, it is in a certain sense true.

As *the social and intellectual* condition of man influences to a great extent his mind, it has much to do in predisposing to and exciting insanity. In those countries where there is little mental culture—where the inhabitants are ignorant, and consequently can have but little to excite the mind, insanity is rare. The untutored savage is seldom insane. He is free from the moral and intellectual commotions that so frequently shake civilized society to its centre. His troubles are principally physical, and as a compensation for the loss of those higher and more exalted enjoyments flowing from the cultivation of the mind, he is more exempt from its diseases.

By a comparison of the proportion of insanity amongst the colored population of the United States, that are in slavery, and those enjoying freedom, as shown by the census of 1840, I find that amongst the blacks in the slave states, there is only 1 insane in every 1557; while in the free states there is 1 insane in every 163. This is the result after correcting the error in the report of Massachusetts, and in a remarkable manner denotes not only the influence of the social condition in producing insanity, but also shows that ignorance affords in a degree exemption from it.

The slave is to a great extent free from the cares and mental anxieties of a life of freedom. As a general rule, in the United States at least, he is provided with wholesome diet in abundance, without the necessity of looking after it; so that the disease and distress that obtain in the lower classes in Europe, where insanity is rife, are comparatively unknown amongst the slaves of our country. There are, however, causes for insanity here of no ordinary character, which, if obtaining amongst a people of intelligence and cultivated feeling, would fill the hospitals, poor-houses, and jails, with their victims. I mean the practice of severing families assunder—breaking the strongest ties of affection, by the rude hand of force and other abuses incident to slavery.

The following table shows the proportion of insanity amongst

the negroes of the United States. Although from some gross errors that have been detected in the census of 1840, from the report of which this has been taken, some are disposed to cast the whole aside as untrue; I think sufficient reliance may be placed on it to lead us to an approximation of the truth in general results. In the calculation I have omitted fractions.

TABLE, No. 2.

Showing the colored population of each State and Territory in the United States, the number of insane and idiotic among them, and the ratio of sanity to insanity.

## OF THE FREE STATES.

Whole colored population.		Insane and Idiotic.	Proport'n of Insane & Idiotic to sane.
Maine,	1,355	94	1 to every 14
New Hampshire,	538	19	1 " " 28
Massachusetts,	8,689	67	1 " " 129
Rhode Island,	3,243	13	1 " " 249
Connecticut,	8,159	44	1 " " 183
Vermont,	730	13	1 " " 56
New York,	50,031	194	1 " " 257
New Jersey,	21,718	73	1 " " 298
Pennsylvania,	47,918	187	1 " " 256
Ohio,	17,345	165	1 " " 105
Indiana,	7,168	75	1 " " 96
Illinois,	3,929	79	1 " " 49
Michigan,	707	26	1 " " 27
Wisconsin,	196	3	1 " " 65
Iowa,	188	4	1 " " 47

Totals, 171,914 1,056

Making 1 to every 163 in the Free States.

## OF THE SLAVE STATES.

Maryland,	151,515	141	1 to every 1,074
Virginia,	498,829	381	1 " " 1,309
Delaware,	19,524	28	1 " " 697
N. Carolina,	268,549	221	1 " " 1,215
S. Carolina,	335,314	137	1 " " 2,447
Georgia,	283,697	134	1 " " 2,117
Alabama,	255,571	125	1 " " 2,045
Mississippi,	196,577	82	1 " " 2,397
Louisiana,	193,954	45	1 " " 4,310
Tennessee,	188,583	152	1 " " 1,241
Kentucky,	189,575	180	1 " " 1,053
Missouri,	59,814	68	1 " " 879
Arkansas,	20,400	21	1 " " 970
Florida,	26,534	12	1 " " 2,221
Dist. Columbia,	13,055	7	1 " " 1,865

Totals, 2,701,591 1,734

Making 1 to every 1,557 in the Slave States.

By the above table we learn from the most reliable source of information at our command, (although allowance must be made for much error,) the number of insane and idiotic among the negroes of each state, and the ratio to the same, as well as arrive at the general results as before stated. By observing



the results in the different states, it will be seen that the proportion of the insane quite regularly increases from the extreme south, where, in Louisiana, there is but 1 insane or idiotic in 4310; to the extreme north, where, in Maine, New Hampshire and Vermont, there is over 1 to every 50. The influence of climate by this would be indicated as considerable.

By a reference to the intellectual condition of the white population of the United States, as shown by the number of persons in each over the age of twenty-one years that cannot read and write, in the following table, also made out from the report of the census of 1840, it will be seen that where there is the least ignorance there is most disease of the mind. This does not hold true in every instance, but it is as a general rule the result.

TABLE No. 3,

Showing the white population of each State in the United States, the number of insane and idiotic, and the proportion they bear to the whole, the number of persons over 21 years of age who cannot read or write, and the proportion they bear to the whole.

White Population.		Insane and Idiotic.	Proportion to the whole.	No. white per. over 21 yrs. of age, that cannot r'd & write	Proportion to the whole population.
WHOLE NO.					
Maine,	500,438	537	1 to ev. 932	3,241	1 " " 154
New Hamp.	284,036	486	1 " " 567	942	1 " " 301
Massachusetts,	729,010	1,071	1 " " 671	4,448	1 " " 164
R. Island,	105,587	203	1 " " 520	1,614	1 " " 65
Connecticut,	301,856	498	1 " " 606	526	1 " " 560
Vermont,	291,218	398	1 " " 731	2,270	1 " " 128
New York,	2,380,890	2,146	1 " " 1,109	44,552	1 " " 53
New Jersey,	351,588	369	1 " " 952	6,385	1 " " 55
Pennsylvania,	1,676,115	1,946	1 " " 861	33,941	1 " " 49
Delaware,	58,561	52	1 " " 1,126	4,832	1 " " 10
Maryland,	317,717	387	1 " " 823	11,605	1 " " 13
Virginia,	740,968	1,052	1 " " 704	58,732	1 " " 12
N. Carolina,	484,870	580	1 " " 836	56,609	1 " " 8
S. Carolina,	259,084	376	1 " " 689	20,615	1 " " 12
Georgia,	407,695	294	1 " " 1,386	30,717	1 " " 13
Alabama,	335,185	232	1 " " 1,445	22,592	1 " " 15
Mississippi,	179,074	116	1 " " 1,543	8,354	1 " " 21
Louisiana,	158,457	55	1 " " 2,881	4,861	1 " " 32
Tennessee,	640,627	699	1 " " 916	58,521	1 " " 11
Kentucky,	590,253	795	1 " " 742	40,018	1 " " 15
Ohio,	1,502,122	1,195	1 " " 1,257	35,394	1 " " 42
Indiana,	678,698	487	1 " " 1,392	38,100	1 " " 18
Illinois,	472,254	213	1 " " 2,217	27,502	1 " " 18
Missouri,	323,888	202	1 " " 1,603	19,457	1 " " 16
Arkansas,	77,174	45	1 " " 1,715	6,567	1 " " 11
Michigan,	211,560	39	1 " " 5,424	2,173	1 " " 90
Florida,	27,943	10	1 " " 2,794	1,303	1 " " 21
Wiskonsin,	30,749	8	1 " " 3,843	1,701	1 " " 18
Iowa,	42,924	7	1 " " 6,132	1,118	1 " " 38
Dist. Columbia,	30,657	14	1 " " 2,189	1,033	1 " " 29
Totals,	14,191,199	14,512	mak. 1 to ev. 984	549,723	mak. 1 to ev. 25

*Political and Religious* strifes and contentions, have to a much greater extent than all other causes, produced great and general excitement. On the principle already laid down, this fact would give them a prominent place among the causes of mental derangement. Not only do strifes in politics and religion exert an influence for weal or woe to the mind, but the form of government, as it gives tone to the feelings and caste to the sentiments of a people, may be considered as exerting an influence. Other things being equal, we would expect more insanity in a republic, than a monarchy, as the mind is here called into greater activity. Although few cases are found reported in this country as being caused by political influences, the great anxiety and inordinate excitements consequent upon them, undoubtedly here as in France, and other countries, do produce insanity. The reports of all institutions for the cure of the insane abound in cases produced by religious influences.

*War*, with its attendant train of evils and sorrows, is a fruitful source of insanity. During the troubles of France, this was particularly demonstrated.

*Civil State*.—That celibacy is favorable to the production of insanity admits not of a doubt, since at the ages when insanity is the most common, a majority of the good citizens of our country are married, and the reports of all our asylums and hospitals for the insane, show a greater number of single than married persons insane.

*Fright*.—Many remarkable cases of insanity by fright might be quoted. The effect is often instantaneous.

*Anger*.—The wife of an acquaintance of mine had been for years in the habit of giving unrestrained latitude to her anger, from trivial circumstances, flying into a violent rage at her husband. They had several times packed up their goods and prepared for a final separation, but the preparation occupied so much time and diverted her mind so as to allow her anger to cool and they would agree to remain together. Her fits of anger became more and more violent until she became entirely deranged. She forsook her home and husband, and wandered over the neighborhood from house to house, uttering the most bitter denunciations against him.

*Excessive study*.—By an inordinate application of the mind the brain is taxed above what the physical energies will sup-



port, and frequently an irritation is established in the brain which results in insanity.

I have already dwelt more fully on the causes of insanity than the limits of my article seem to justify, because in doing so it has been necessary to adduce many facts that will be found interesting independent of this connection. The other causes referred to are quite common, but from what has been said the reader will readily see the reasons why they should have this effect and I leave them.

#### FORMS OF INSANITY.

Under this head authors have generally made quite a multiplicity of distinctions, many of which serve much better to display the learning of the author, than to elucidate the subject. The different forms of the disease so often pass into each other without any manifest influence determining the change, that it is exceedingly difficult to make any very accurate distinctions, that will give a clue to the pathology of the case. However, as the peculiarities of these different forms of disease, may be important in directing the moral treatment, I will notice a few of the most prominent. They are *mania*, *monomania*, *melancholia*, and *dementia*. There are distinctions depending upon the organ, or part of the brain, or nervous system affected, not generally treated as varieties of insanity, which are much more properly entitled to the distinction, as derangements of the senses, of the intellect, and of the moral sentiments. That different parts of the brain as well as of the general nervous system, perform different functions, is beginning to be quite generally admitted. And if it be true, why not look to different parts of the brain for disease, when certain feelings, sentiments or faculties of the mind are deranged in their action?

*Mania*.—This form of insanity is readily recognized. It is characterized by a peculiar wild expression of countenance manifesting great anxiety, perturbation and excitement of the feelings, and is attended with a general derangement of the intellectual faculties. The eyes are injected with blood, and glare wildly. The features become more rigid and are subject to frequent contortions. The hair often becomes dry and stiff, and adds to the haggard appearance.

This form of insanity is the most violent and uncontrollable, but not by any means the most incurable. It often continues

for several days, or weeks, or even months, and passes into one of the other forms of the disease. When this form occurs, it is generally at the onset of the attack. It is that form of insanity most generally attended by, and consequent upon excitement. Of the various forms of this chronic disease, mania is the most active.

Climate, and the peculiarities of the inhabitants have much to do in determining the character insanity assumes. Dr. Ray observes, "I have little doubt that in Great Britain and France, insanity assumes very much less frequently than with us, the form of intense and completely uncontrollable excitement, and when this condition does occur, it is of much shorter duration." Energy is one of the prominent characteristics of the American. He does everything he undertakes with all his might. He distinctly acts on the high pressure system; being accustomed to freedom of thought, speech, and action, constantly pressing forward with the brightest hopes to the highest destinies, while in health, it is but reasonable that we should find him when insane, the subject of the most ungovernable excitement.

*Monomania*.—The mind may be but partially deranged, that is in reference to but one or two subjects, while the other powers remain unimpaired. Although recognized as a distinct form of the disease by authors, it in fact differs from that of mania only in extent. It often precedes mania, and constitutes a premonitory symptom of its onset. Many persons are to the full extent of the meaning of the term, monomaniacs, who are yet capable of transacting business, and fulfilling competently most of the relations and duties of life. In fact many of the most distinguished persons have been partially deranged. Luther fancied that the devil was in him, and that he heard him speak. Butler in his celebrated *Hudibras*, refers to this in the following lines:

"Did not the Devil appear to Martin  
Luther, in Germany, for certain."

Not only does slight disease of the brain frequently exist without destroying the mind, but it frequently has the influence of exalting its powers. Dr. Brigham says "In the writings of Fielding, Metastasio, Pope, Dryden, Rousseau, Madam Roland, Dr. Johnson, Byron, and many others, are descriptions of incipient madness, evidently drawn from their own



sensations. Metastasio says, "when I apply with attention, the nerves of my sensorium are put in a violent tumult, and I grow as red as a drunkard." Pascal often sprang from his chair while composing his most celebrated works, seeing a fiery gulf opening by his side. Descartes was often followed by an invisible person, calling on him to pursue the search of truth. Benvenuto Cellini, saw a resplendent light hovering over his own shadow, and Raphael says, alluding to his celebrated picture—the transfiguration—that when engaged upon it he might be looked upon as an enthusiastic madman: that he forgot himself, and fancied he saw the whole action passing before his eyes. Cowper was decidedly insane, even at the time he wrote his most celebrated poems. All this time and for many years, he doubted the identity of his most intimate friend, the Rev. Mr. Newton. Cruden, the author of the concordance of the bible, was insane more than thirty years, during which time he prepared and published that learned and valuable work. Robert Hall might be mentioned, if not as an instance of the improvement of the mental powers by insanity, certainly as one in whom this disease did not injure them.

Numerous cases are on record in which great difficulty has been experienced by physicians and jurists in establishing insanity; so well and correctly did the subjects of it think and talk on almost all subjects, while in reference to one or two topics they were quite deranged.

Dr. M——, an incurable inmate of the N. Y. State Lunatic Asylum, is quite an intelligent correspondent of the Utica papers. He converses freely and sensibly on most subjects. The following "prayer for the insane poor," he wrote and presented me:

"O God, who declarest thy power! in commiseration mercifully regard me and restore me to saneness and composure amidst all my perplexities. To usefulness, respectability, individual and social happiness. To an ability to acquire and control the means for my respectable and honorable maintenance. To the rational enjoyment of the privileges, and to the faithful performances of the duties of an American citizen."

I heard him declaim "The Soldier's Dream" in a manner that would have done credit to the soundest mind and the

best student of elocution. In fact, no one, from all I saw, would have suspected him of insanity.

Almost every hospital for the insane has its preachers, its politicians, its sages who manifest their wisdom by silence, its philosophers and its poets. One of the best productions from one of the latter class, and they are numerous, is the following from a patient in the "Retreat," near York, in England. He, it seems, fancied himself destitute of heart, liver, brain, and everything else.

"A miracle, my friends come view !

A man, (admit his own words true)

Who lives without a soul ;

No liver, lungs, nor heart has he ;

Yet sometimes can as cheerful be

As if he had the whole.

His head, (take his own words along)

Now hard as iron, yet ere long

Is soft as any jelly ;

All burnt his sinews and his lungs :

Of his complaints, not fifty tongues

Could find enough to tell ye.

Yet he who paints his likeness here,

Has just as much himself to fear,

He's wrong from top to toe ;

Ah friends, pray help us if you can,

And make us each again a man,

That we from hence may go."

From what has already been said, it is plain that no regular distinctive symptoms can be given of monomania. It is any form of insanity partial in its extent.

*Melancholia*.—Dr. Elliotson says "there is no real difference between "mania" and "melancholia."

The distinction here tried to be made is to form a class of those cases in which great depression of spirits prevail. But no more appropriate is this, than to make a class for the suicidal, homicidal, loquacious, taciturn, the merry or the voracious; for almost all forms of insanity are liable at times to assume this character.

*Dementia* is that form of the disease that destroys the mind, or so far affects the brain as to suspend the mental manifestations. It is most common in old cases, where from long continued disease the brain becomes more and more under its influence, until there is a complete want of mind. Although



it occasionally is found in the early stage of the disease, most authors deny the existence of acute dementia. When it does occur, I apprehend it is from a prevalence of disease through the whole brain, to the extent of entirely suspending its appropriate action as organ of the mind. I saw a case last spring in the Pennsylvania Hospital for the Insane, that I supposed to be of this character.

There is little hope of cure in long cases of dementia, especially in those that have gradually assumed this character.

There is another form of insanity that has recently attracted much attention. It is of the utmost importance, not only in a pathological and therapeutical, but also in a medico-legal point of view. It is called *moral insanity*, and is a derangement of the moral sentiments and feelings without an overthrow of the reasoning or perceptive faculties.

Great destructiveness, acquisitiveness, self-esteem, love of approbation, sexual desire, &c., are often found where they may not be said to constitute insanity. But when these propensities become so strong as to entirely control the action of the individual, in spite of his better judgment, (and they often do) while all his moral powers are brought unavailingly to bear against them, he is certainly insane. When an individual feels an irresistible impulse to do any unlawful act contrary to his better judgment, he is deranged; but the case becomes much more manifest when the act runs counter to the known and established laws and feelings of his own nature: as when a parent is impelled to the destruction of his own child, &c.

Such cases require in the jurist and medical witness great care in investigation, and sound and enlightened judgment in decision, lest on the one hand they condemn the irresponsible and consequently innocent, or on the other they let the guilty go free.

Hereditary conformation, education, and the power of habit have much to do in predisposing to this form of insanity.

Numerous instances are on record where the excessive indulgence resulting from hereditary disposition, or vicious education, of one or more of the propensities of our nature, have so strengthened them as that they have acquired the complete control of the whole man; or in other words produced moral insanity.

I believe the day is not far distant when an investigation of

the pathology of insanity will give us a more rational classification of its different forms, founded upon the disease of the brain and the parts affected, instead of the peculiarities of the mental manifestations of that disease.

#### SYMPTOMS.

When an individual, not laboring under fever of a grade to produce delirium—sees objects that have no real existence—when a marked change comes over his feelings, his desires, his sentiments and his disposition,—when in his attempts to reason, that which was formerly clear and explicit to his mind, becomes confusion and error—when from plain facts he draws wild and erroneous conclusions—when he fancies himself or the objects around him to be different from what they are—when he supposes he has converse with unseen spirits, with the inhabitants of the other world or with the dead—or when he fancies himself an inhabitant of a far distant country, of the moon, or of eternity—although the wreck of mind may not be established, it is time for him and his friends to suspect that he is insane; and often by a timely resort to the rules of treatment hereafter laid down, the dread calamity may be averted.

It is important to detect the earliest symptoms of insanity, for it is in this stage that our remedies are the most potent and the cure most speedy. Often man may prevent insanity by understanding the tendency of his mind to the disease. And even where it is established to some extent, he often has the power to control it. The remarkable case of Nicolai of Berlin, who saw for months together vast numbers of human forms around him, and yet so far controlled his mind as to remain entirely sane, is a case strictly in point.

It cannot be expected that unaided, the patient can control his insanity where the derangement is general, yet here as we shall hereafter see, much controlling influence may be exerted by moral treatment.

Insanity sometimes begins suddenly. This generally occurs in puerperal cases in which it mostly assumes a violent form, corresponding with the activity of the disease that produces or constitutes it. In other cases it comes on gradually, being first manifested by oddity of manners, strange opinions, or absurd fancies. These frequently are but an exaggeration of notions previously entertained.



A steam doctor in Ohio, of some notoriety, who had long indulged the most illiberal opinions in reference to the regular practice of medicine, after laboring under an affection of the lungs until much reduced, consulted a physician of eminence in the town where he resided. Soon after he supposed himself poisoned. He labored under constant apprehensions lest some of the physicians should slip some of their poisonous drugs into his food or drinks, although no one of the faculty went near him. He was removed to the Ohio Lunatic Asylum, where it was with great difficulty that Dr. Awl could so far gain his confidence as that he was willing to submit to the course of treatment by which, soon after, his mind was restored.

*Physical signs.*—As has been seen, there are various forms of disease attendant upon insanity, either acting as causes or consequent upon it. Of the first, sufficient has been said under the proper head. The latter we find to be various, and by no means constant.

In some cases there will be a frequent, and in others a slow pulse, while sometimes there seems to be but little disturbance of the circulation. As a general rule the pulse is not to be relied upon as affording any index to the pathology or treatment of the disease. Dr. Cox says, “whenever it exhibits very considerable changes without any obvious causes or corresponding symptoms, sudden death frequently closes the scene.”

When insanity occurs in connexion with other diseases, they frequently modify the circulation, when its changes are pathognomonic of the attendant disease, and not of the insanity. Dr. Rush placed great stress upon the pulse in mental derangement. His theory of the disease was, that it depended upon vascular excitement; the practice deduced from which, was copious bleeding—an error in theory that to some extent modifies most prejudicially the treatment of the disease in private practice to the present day.

The head is frequently too hot—the face flushed and the eyes injected. It is sometimes the case, that while the pulse at the wrist is feeble, the carotids throb forcibly—denoting an unnatural determination of blood to the head.

The secretions are often perverted, diminished or increased. The tongue is generally coated and the saliva changed. The

appetite is exceedingly variable. Sometimes the inordinate voracity of the patient is the first index of disease. In other cases there is not only a loss of appetite, but a great aversion of both food and drink. In many cases the only means of introducing food enough into the stomach to prevent death from starvation, is that adopted in several of the hospitals. The food is prepared in a liquid form—the tube of the stomach pump passed down the throat, and by means of the pump the food is forced down.

The external senses are often diseased—vision is impaired, perverted, or the eyes become extremely sensitive to the influence of light. The ears are affected, and the patient hears strange sounds—a roaring sensation in the ears, persons talking, &c. The taste is often perverted, and the olfactories suffer from disagreeable odors. The sense of feeling, too, undergoes various changes.

In some cases there is much stupor, but more, generally, there is much restlessness; and in such, frequently, the loss of sleep hastens on the disease. Patients often go days and even weeks, without sleep; the disease of the brain acting as a substitute for that restoration of energy brought to the weary by “balmy sleep.”

#### PATHOLOGY.

It will not be necessary to enter into an argument to prove that the brain is the organ through which the mind manifests itself—the instrument through which its operations are performed. This is admitted. Nor will it be necessary after this admission, to adduce arguments to prove that a diseased condition of the brain will give rise to imperfect and deranged actions of the mind, any more than it would to prove that an injury of the eye would impair vision.

Then, if disease of the brain will derange the mind, we are authorized to look for it whenever the mind is deranged. The disease in insanity, as has already been said, is physical, and any other supposition would lead to the position that the mind is subject to decay, and would rob it of its noblest attribute, immortality.

When the functions of any organ are deranged, we look to the organ itself for the cause; when hearing is impaired we refer to the ear, and when sight is interrupted we look to the eye. Whether the disease be primarily in the organ itself, or



is produced secondarily by morbid actions in other parts of the system, we refer to the organ whose functions are deranged for the proximate cause. When a secretion is arrested, perverted, or becomes too profuse, we say a morbid condition of the gland by which it is secreted is the cause. And so with reference to the manifestations of mind; when we find them deranged we infer a morbid condition of the brain. *All mental derangements are but symptoms of disease in the brain*, which may be either primarily affected or diseased by the derangement of some other part of the system with which it sympathises or is in close dependence. By a reference to the part the brain acts in the animal economy—being the sensorium commune,—we see how close are its dependencies, and how extensive its sympathies. From it emanates the nervous influence which gives vitality to all parts of the system. To it flows through the innumerable bonds of connection formed by the nervous system every impression received, and consequently every morbid action in the system must have a greater or less influence over it, while every morbid impression upon it must exert an influence over the whole system. Thus, when the stomach fails to perform its function, nutrition is suspended, and the necessary support is withheld from the brain in common with other parts. That supply of healthy blood so necessary to its normal action, and which is one of its natural stimulants is not furnished, and imperfect action is the consequence. Again, the sympathy between the brain and stomach, through the pneumogastric or par-vagus nerve, is most important. How speedily an injury of the brain affects the stomach, and how certainly disease of the stomach affects the brain. With the heart, the lungs, and in fact with all parts of the system, these relations are more or less closely sustained. But it is only when the brain itself suffers a lesion, that we have insanity. It may be considered a disease of the nervous system; and very properly has Dr. Good placed it at the head of his class *neurotica*.

As the structural changes that takes place in the brain and its membranes in many cases, are by no means constant or regular, we are led to conclude that insanity is produced most generally by irritation; a term, which some authors of eminence, make synonymous with inflammation, in which definition I do not concur. That inflammation, properly so called,

will derange the mind, when seated in the brain, is a fact that no one will deny; for the delirium produced by phrenitis and arachnitis are positive evidences of it. The form of mental derangement generally understood by the term insanity, is slow in its action, in many cases entirely free from producing any inflammatory excitement in the system, and is often attended by great depression of the energies and action of the vascular system. Its periodical form, too, would do much towards establishing irritation as the peculiar form of morbid action. The character of many of the causes may also have an influence in directing our investigations of the pathology of insanity. When we remember that many of them act gradually in producing the morbid condition—that the inception of the disease is attended in many instances simply by functional derangements, and that many patients labor under the disease for twenty and thirty years and even longer, whose brain after death presents in almost all respects a healthy appearance, we can but conclude that this disease is one of irritation.

The manner in which the disease is produced, varies much in different cases, and from different causes. Sometimes the irritation is reflected, as when the close student, by too great exertion of the brain, robs his stomach of the nervous energy necessary for healthy digestion, becomes dyspeptic, by continuing the mental application involves the brain still more and more in disease, the disordered stomach adds its influence in increasing the morbid action. He first becomes melancholic and finally insane. Dyspeptics are generally hypochondriac, and often labor under a condition of the brain that closely approximates insanity. The insane very often labor under derangements of the stomach and bowels, and many of them are dyspeptic. Not only does the dyspepsia often aid in the production of insanity, but disease of the brain produces dyspepsia. Many other diseases have this kind of reciprocal action with insanity, which in its treatment should always be borne in mind.

That different parts of the nervous system perform different functions, is established beyond a doubt. There is one class appropriated to the function of muscular motion, part of which only, is under the influence of the will. Another class endowed with sensation, which is subdivided into as many parts



as there are external senses, and each of these nerves perform their appropriate function only. They originate from separate portions of the brain, which seems to indicate that it is a plurality of organs. We also find from various observations made upon the brain in health and disease, that its different parts perform different offices. That although a portion of one hemisphere may be removed without impairing any of the faculties of the mind, no case is on record where corresponding portions of the hemispheres, have been diseased, without destroying or deranging one or more of those faculties. From these facts we are justifiable in the conclusion, that different portions of the brain being diseased, will produce different forms of insanity. Although cases occur in which all the faculties of the mind are equally deranged, this is by no means a general circumstance. Mostly some one, two or three of the faculties are particularly affected, while the rest seem to be but little disturbed. When this is the case we infer that the part of the brain appropriated to the use of those faculties of the mind, is the seat of disease. And this is corroborated by observations on the treatment of insanity. When on a particular subject a patient is insane, the best moral treatment is to divert the mind from that subject, and allow the part of the brain through which it acts, repose. If the position taken was not true, any form of mental action would be injurious while the brain was diseased, but experience abundantly establishes the propriety of mental employment, provided, it be directed out of the channel of the disease.

That a pathology of insanity founded upon the parts of the brain affected, will ultimately be permanently established, I have no doubt. And when it is, both the moral treatment of the disease, and the prophylactic means used, will be to a great extent governed by it.

*Post Mortem dissections* occasionally discover but little evidence of disease in insanity, from which some have been ready to doubt the seat of disease being in the brain. But are not dyspepsia and asthma located in the stomach and the lungs? And how often is it the case that the morbid appearances of either of these organs after death from these diseases, give no evidence of their having existed. However, when insanity has continued long, there is evidence of disease generally in the brain and its membranes.

In many cases of insanity, connected with paralysis, there are signs of inflammation in the brain.

In recent cases there is often no morbid appearance after death, but changes in the consistence and appearance of both the cortical and medullary matter of the brain, and thickening and adhesions of its membranes are common in those of long standing.

The heart and lungs are frequently diseased. Hypertrophy of the heart, and phthisical degenerations of the lungs, are said to be quite common.

Gastro-enteritis has been found to have existed in many cases. But in reference to all these, we should expect great derangements in almost all parts of the body, from the diseased influence the brain in insanity must exert on the system. And no doubt many cases die from insanity by the establishment of disease in different parts of the system, through this morbid influence.

#### CURABILITY OF INSANITY.

The reports of the different hospitals and asylums for the treatment of insanity, abundantly establish the curability of the disease. From seventy-five to ninety per cent, of the recent cases admitted are cured by most of them. And their physicians all concur in the opinion, that when taken in its early stages, it is as curable as a fever or pleurisy.

Although many disadvantages attend its treatment in private practice, a judicious resort to the means within our control, will enable us to cure quite a majority of the recent cases, even here.

#### TREATMENT OF INSANITY.

I propose to confine my remarks under this head principally to what will be appropriate in private practice. It is properly divided into the *moral* and the *physical* treatment.

*Moral Treatment.*—As soon as symptoms of insanity are discovered, the patient should be placed under treatment, which in many respects must be varied to suit the peculiarities of the case. But he should always as far as is practicable, be removed from under the influence of the exciting cause. When in its incipient stage, the proper remedies to correct the physical derangements present, and a removal from the influence of the exciting cause, will often prevent the full development of the disease.



If the cause be a moral one, any means of directing the mind into another channel of thought, will be appropriate as a preventative, or a means of averting the full development of disease.

The most effectual means of doing this will be a change of pursuit, removal from home, traveling, &c. Even when the disease is fully established this will be necessary, and should be attended to without delay. It may be laid down as one of the first and most important points in the moral treatment of insanity, to remove the patient from amongst his friends, and particularly from his own family if he have one. This is necessary for various reasons. *First*, that the associations that have been formed in the development of the disease, which may have had an influence in producing it, may be broken up. *Secondly*, because these associations, if not acting as a cause, have become so intimately connected with the diseased train of thought, that they constitute a part of it. *Thirdly*, because in a change of scene new objects present to the mind and institute new channels of thought, as well as tend to interest the mind. *Fourthly*, because strangers have much more influence in governing the insane, than those with whom they have been accustomed to associate on terms of intimacy and equality. They often are highly incensed at authority exercised over them by those from whom they have been accustomed to kindness, which from strangers they would receive kindly; and this is one of the reasons why the insane so universally regard those who have previously been their best friends, in the light of enemies.

*Kindness.*—It is of the utmost importance that the insane be treated by all, with the utmost kindness. In selecting an attendant to take charge of a patient, we should be particularly careful to obtain one who can sufficiently appreciate the condition of his patient, not to become irritated at his words or conduct, however insolent they may be, who would understand and appreciate the fact, that *the laws of humanity and of kindness are the only rules that should be applied for the government of the insane*. However much the reason may be dethroned, there are few, very few, who cannot be made to feel those heaven born influences that flow from the benevolent heart. He should be one, too, who while he would take care for the physical comforts of his charge, could also direct

his mind from those "carking cares," wild fancies and hallucinations, that else would form his theme of converse and of thought by day and by night.

*Employment.*—Let something be devised to keep the patient employed; and if he is able, and has been used to labor with his hands, this will be the best means. While the hands are employed busily the attention will be directed to the work; and although much effort may be necessary to effect an application to it, most persons can eventually be interested, which will abundantly reward for the pains by engaging the attention and invigorating the system.

The cultivation of a garden, labor in the field, or some mechanical occupation for the male—sewing, knitting, spinning, washing, ironing, scrubbing, and the like domestic labors for the female, will be entirely appropriate, where the ability and inclination will allow. No harsh measures should be used to induce the insane to work, or for any other purpose.

When ability or inclination show the impropriety of this kind of employment, many amusements may be resorted to, and even with those who labor they should be introduced for recreation.

The insane are often fond of reading, which is both an interesting and useful amusement. They often take great interest in histories, works of fiction, and in reading newspapers. Where there is an inclination of this kind it should always be encouraged; however, with a care not to place any work in their hands that treats upon any of the subjects upon which they are deranged. In fact, in selecting employment and amusements for them, care should be had in every case to see that they divert the mind from those subjects upon which they generally dwell.

Schools in hospitals are becoming quite popular as a means of entertainment and instruction. I saw a most interesting exhibition at the N. Y. State Lunatic Asylum last spring, in which the insane scholars deported themselves with great propriety, read many pieces of their own composition, recited lessons and gave some fine specimens of declamation. Dr. Brigham assured me, that many of them improved rapidly. Some philanthropic individuals in Europe are doing wonders in developing the minds of idiots by educating them. It is



said they succeed in teaching many, rules of behavior, who appeared previously almost entirely destitute of mind.

By giving the insane lessons, they are entertained, and the mind kept steady, which favors recovery. Geography, history, language, reading and writing, form good studies for the insane. Drawing and painting too, are interesting to those who have a taste for them.

An intelligent lady, a few years ago, having long been a professed christian, was so rejoiced at the conversion of her husband, who had been an avowed infidel, that she went all lengths with him in devotions and leading a life of self-denial. The subject of religion was their constant theme. They had family prayer three times a day, and fasted twice a week; while she at the same time was suckling a young child. Her health began to decline, she complained of general debility. A loss of appetite and a torpid condition of the liver soon followed. For a time her devotions became more fervent, her religious enjoyment scarcely knew any bounds, and the whole religious community rejoiced in her spiritual prosperity.

But her physical system was too much worn down by fasting, suckling and application, to bear the mental excitement with impunity. She lost the evidence of her acceptance with God, and her enjoyment was changed to despair. Her countenance manifested it in every feature; and her supplications for mercy, by their fervency and earnestness, corroborated the expression. Her sinfulness in having professed a change of heart, when (as she said) she had not, and all the fancies and real errors of her life were brought up in fearful array before those she addressed. She would earnestly solicit advice of her friends, and often inquire whether they thought it possible for her to receive pardon. Her husband reasoned with and prayed for her, and her pious friends and neighbours held prayer meetings at the house for her especial benefit; but little thinking, that, in calling for Divine aid, they were violating one of the established laws of nature, which man may not disregard with impunity. Of course, under this she became worse and worse. She even thought of self-destruction, and had made preparations for the awful act.

When I took charge of the case, it was with the utmost difficulty that I could for a moment divert her mind from the subject of religion, and from brooding over her deplorable condition.

I removed her from home, forbade conversation on the subject of her condition or religion in her presence, used the physical remedies indicated by the derangements of the general system, gave liberal doses of morphine at night to secure repose, for she, as is usual in incipient insanity, passed sleepless nights. I set her to work with her pencil, which she plied with much taste and skill, part of the day, and required her to recite a lesson in French in the evening. These occupied much of her time, and she soon became interested in them. She rapidly improved, her countenance brightened up, she slept soundly, and in the course of a few weeks was quite comfortable. It was some time, however, before the subject of religion could be introduced in her presence without causing much agitation of mind. And it was months before she could attend religious service without great excitement. However, by carefully avoiding the subject, she in time became entirely healthy, and able to converse on all subjects with intelligence and interest.

*Restraints.*—The too common practice of confining patients in block houses, jails and tight rooms, or of confining them in chains, where they are left alone not only hour after hour, but day after day, and month after month, without more privilege of seeing their fellow creatures than is necessarily afforded by those who supply them with food, or visit them out of idle curiosity to see a “crazy person,” is not only calculated to aggravate and confirm the disease, but is most cruel and shocking to humanity. All cases, having the ability to bear the expense, should have an attendant immediately employed, and those unable should be furnished by the county in which they reside, who could entertain, console, and by acts of kindness, calm his troubled mind, using as little restraint as it is possible to get along with.

An appliance for the violent, that renders them perfectly harmless, yet allows them freedom in walking about, is the hand-muff or camisole. It is made of leather in the form and shape of a section six inches long of a sleeve, with a strap at each end, passed round the margin through slits cut for it through the leather. The hands are both passed into this, and the straps are drawn sufficiently tight around each wrist to prevent the hand from slipping out, and confined by a little padlock or any other contrivance the ingenuity of the attend-



ant may invent. Another mode of confining the hand that answers equally as well in most cases, is prepared by making a frock or coat of strong linen, with sleeves about twice the length of the arm. The hands in the sleeves are then crossed over the breast loosely, and the ends carried around and tied on the back. With such confinement as this and proper attention, no one need fear the most violent; and I repeat, it is cruel to use more restraint than is necessary for safety, and protection and comfort of the patient.

#### PHYSICAL TREATMENT.

Under this head I do not propose laying down rules of treatment for the various complications of disease with which insanity is often attended. The general principles of treatment, applicable to each particular case, must be our guide.

Although many authors seem to regard medical treatment lightly as applied to the cure of insanity, there are many remedies of great utility as we shall hereafter endeavor to prove. There is much less confidence in these remedies generally, in Europe than in this country, probably owing, in part, to the fact that insanity there generally assumes a different character from that in this country, as has already been pointed out.

The moral and physical treatment should go together; and the sooner after the attack they are applied the better the prospect of cure.

*General bleeding.*—There are few cases of insanity that are not made decidedly worse by the free abstraction of blood. It is a source of general regret in our American Institutions for the insane, that practitioners so generally resort to it. It may for a time check the excitement; but it generally, when reaction takes place, returns with unabated violence, and with the disadvantage of having the irritability of the system much exalted, while the energies are depressed. If the disease were, as some suppose, an inflammation of the brain, or, as Rush and his followers contend, dependent upon vascular excitement, this would be one of our most valuable remedies. But experience, “the touch stone,” is loud in its condemnation of bleeding as a general practice. In many cases thus treated, fatal depression of all the energies of the system is the consequence. While under the excitement of insanity, the system will bear copious bleeding, and may be reduced so low before the practitioner is aware of it, that when the excitement,

which fills the whole system with artificial energy, is subdued, in spite of tonics and stimulants the patient sinks to rise no more.

That there are cases in which general bleeding would be proper on account of complications, as when connected with inflammation, is certainly true; but great care must be had not to mistake the excitement simply consequent upon insanity, for a symptom of inflammation.

*Local bleeding*, by cupping and leeching, is a valuable means of diminishing the determination of blood to the head, and of reducing the action there, but must be regarded as a means of secondary importance.

*Cold applications to the head*.—These either in the form of the douche, or of ice, are valuable remedies. Many cases have been reported as cured by pouring cold water on the head alone; but it is when taken in connection with other remedies, and during excitement, that it is most valuable.

The douche may be given conveniently by filling a coffee-pot with cold water, and allowing the stream poured out of the spout to fall some distance on the head. This frequently calms the excitement, checks the flow of blood to the head, and allows the patient a period of repose. By repeating as the excitement returns, in periodical cases, much influence may be exerted in keeping the patient calm, and of course in relieving the disease.

*Baths*.—Amongst the means of removing disease from the skin, and of diffusing the circulation so as to equalize it,—and many if not most cases require remedies of this description—bathing will be found one of the most efficient. While I shall not stop to discuss the truth or error of the doctrines of Priznitz, I am willing to award to the bath great efficacy in the cure of diseases.

Warm and cold baths are used in all well regulated hospitals for the insane, and of course with decidedly beneficial effects, or they would long since have been discontinued.

Where there is coldness of the extremities, and determination to the head, the warm bath given, while cold is applied to the head, has a most salutary effect and should often be repeated. The cold bath in many cases acts as an excellent tonic, invigorating the system and should often be used.

*Blisters*.—These, may, in some cases, be valuable in two



ways: by establishing a drain from the system in cases arising from the healing of issues or the sudden arrest of perspiration; and by acting as a counter irritant. However, in most cases, there is danger of their increasing the irritability of the system and aggravating the disease.

*Setons and Issues*, may serve as counter-irritants, and are more appropriate in chronic cases than blisters. They are not in as high repute now as formerly.

*Emetics* are not in high repute in the treatment of insanity *per se*, but often are appropriate in the diseases that attend it, which should always receive prompt attention. Those producing the least prostration and general irritability, should always be preferred. *Ipecacuanha* is one of the best. And I have no doubt the *sanguinaria canadensis*, on account of its promptitude of action and invigorating influence on the stomach, would be found valuable.

*Nauseants* may serve to check the general excitement; but the distress they produce and the irritability attendant upon their use, are sufficient reasons in most cases for laying them aside.

*Cathartics*.—There are many cases of insanity attended with derangements of the bowels, in which this class of remedies is valuable. But in reference to the curative treatment of insanity itself, there is not much reliance to be placed in purging. In its effect, it is too closely allied to the other depletory measures to which we have referred, to be generally advantageous. Where there is constipation, much may be done towards remedying it, by attention to diet, and the use of gentle laxatives. Where there is a torpid condition of the liver, *Blue Pills*, *Cook's Pills*, and such preparations as the peculiarities of the case may indicate, should be resorted to. Dr. Woodward highly recommends the use of *guaiacum*, either in the form of tincture, or the powdered gum, which latter he prefers.

*Diaphoretics*.—The skin is very prone to unhealthy action in insanity; in the early stages, being often hot and dry; to remedy which, sudorifics are valuable.

There is no article of this class that has higher claims to our confidence, than the *Dover's Powders*, (or what is but a modification of it, a combination of morphine and *ipecacuanha*,) used with carbonate of ammonia. However, the various

preparations used to promote action of the skin, should be suited to the particular indications of the case. Where there is much excitement, the preparations of antimony may be admissible; where there is debility and want of tone in the stomach, the chamomile flowers, (*anthemis nobilis*) boneset, (*eupatorium*) pleurisy root, (*asclepias tuberosum*) guaiacum and remedies of this class may be appropriately resorted to.

*Narcotics.*--Dr. Woodward says, "by far the most useful remedies in active mania after the system is prepared for their use are narcotics."

The pathology of the disease being, as I have shown, that of irritation, we would, *a priori*, infer that this was the most appropriate class of remedies for its cure; and experience confirms the doctrines in pathology, by showing the fitness and success of the treatment. Often large doses of these remedies are required before the system can be brought under their influence; and it is scarcely necessary to say, that unless they are used to this extent, not only the object of their use will not be attained, but injury will be done to the patient by their administration.

*Morphine* stands at the head of this class of remedies. It should be given in solution, and the dose regularly increased until it produces tranquility of the system, and secures repose. In those cases in which sleeplessness is one of the most troublesome symptoms, and they are numerous, morphine and other preparations of this class are invaluable. When the effects of the remedy are secured, they can generally be maintained without much trouble, by continuing the use of the medicine, and frequently in the course of a few weeks the dose may be much reduced, and finally suspended, on account of the complete recovery of the patient.

The two ends of calming the system, and promoting the action of the skin, may be attained frequently by the prescription given as a diaphoretic. But the combination should only be used while the skin demands it; as the anodyne should be continued, so that the patient shall be continually under its influence. The amount of morphine necessary to be used cannot be given. In some cases it will seem almost incredible to tell the quantity necessary to produce its effect. It is scarcely necessary to say that care must be had in the use of



this remedy, not to give it when there are any strong counter-indicating symptoms.

*Datura Stramonium*, has had considerable reputation with some practitioners. In epileptic cases it is said to answer a valuable end, where the system is kept so far under its influence as that, the pupils of the eyes are affected by it. It may be given in tincture of the seed or in the extract.

*Cicuta*.—This remedy enjoys some reputation, and is used in the hospitals in combination with different preparations of iron, it is said with great advantage, and especially in the older cases, and those attended with neuralgic affections. It must be used in large doses to do any good; for unless it produces the “heavy dull pain over the eyes,” and vertigo, which characterizes its effects, it will be useless to give it.

*Hyosciamus*.—From some recent researches in reference to the effects of this drug, which go to prove that its influence over the circulation in the brain, is different and opposite to that of opium, the former diminishing the flow of blood to the head, we would expect it to be of great service in many cases of insanity. Combining the anodyne with the influence of diminishing the circulation in the brain, we should expect that in almost all cases where the preparations of opium are forbidden, this would be appropriate. Although not so potent as morphine, in many cases it will secure tranquility of the nervous system and sleep.

*Strychnia*.—This is the great remedy for paralysis, and as many cases of insanity are attended by it, we would infer its applicability. It is a powerful remedy, and must be used with care. The dose should be gradually increased from what is ordinarily given, until it produces its peculiar effect—a sense of constriction in the stomach.

*Camphor*, with opium, especially, has great influence in controlling the venereal appetite, and will be found particularly applicable in cases attended with priapism, where there is an indulgence in “the secret vice,” and in nymphomania.

*Tonics*.—These are valuable to restore the system in cases worn down by excitement, and where there is a debilitated state of the digestive organs. The preparations of iron, bark, columbo, quassia, &c., in combination with aromatics, in the form of tincture, are amongst the most valuable.

*Quinine*.—This great febrifuge, the effects of which are now

undergoing an investigation, can scarcely be passed over in the treatment of any disease in the great valley of the west. Our diseases are so often modified by the prevalent malarious influence of the country, for the cure of which quinine stands pre-eminent,—almost bearing the character of an entire specific—that it becomes us in the treatment of insanity, as in other diseases, to detect those symptoms arising from this influence and meet them. And whether quinine is a tonic or not, a stimulant or a sedative, it matters but little, if where we find traces of miasmatic disease it will remove them.

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#### ARTICLE II.

*Case of Tubercular Deposit in the Cerebellum. Autopsical Examination.* By P. A. ALLAIRE, M. D., of Aurora, Kane Co., Ill.

S. P., a young woman aged 19, of previous good health, came under my care in February last with the following symptoms: constant and severe headache, nausea, frequent vomiting, with tenderness of epigastrium. The tongue was clean, pulse about 100, moderately full and firm; all other functions well performed. She was bled from the arm, had fomentations to the tender region, took morphine, and had the bowels moved by injection. These remedies gave much relief, and in two or three days I left her apparently convalescing from the attack.

*March 9th.*—Saw S. P. again, and found her suffering as in February. The head ache was now most intense, posteriorly; every attempt to rise in bed caused vomiting; the intellect was clear. No cause could be given for her condition, great care having been observed in diet, exercise, &c. She was treated as before, except that no bleeding was had, the neck being blistered instead; and ice-cold water constantly applied, with counter-irritation to the extremities. Considerable relief was again experienced, but the patient did not recruit her strength. The stomach remained irritable, vomiting of bilious fluid being frequent, the head ache was also at times intense in spite of remedies, while the pulse became quiet and natural. She remained much in this condition during the months of April and May. In the early part of June, a new



train of symptoms became developed,—(the gastric difficulty and headache having greatly subsided, while food could be taken and digested in considerable quantities,)—temporary loss of vision, followed soon by temporary loss of hearing and speech, during these attacks, which lasted from 3 to 6 hours. The pupil was exceedingly dilated, but no other part seemed paralysed. Muscular motion and sensation remained usually good. These temporary attacks of partial paralysis continued to the termination of the case, occurring from two to three times per week at first, and gradually becoming more frequent, one or even two a day being common during the last few days. The treatment was not active during this period, but rather palliative. The manipulations of Animal Magnetism seemed very much to soothe a peculiar restlessness observed during her loss of speech, hearing, and sight; it also relieved, (as she called it) “a strange feeling of stiffness and pain” in the muscles at the back of the neck. The menstrual function continued throughout, with some diminution as to quantity, and the mental faculties seemed clear when able to speak. She sank on the 13th of July, apparently from exhaustion, without coma or convulsions.

*Examination 12 hours after death.* By DR. EASTMAN.—The contents of the thoracic and abdominal cavities were carefully examined, but no trace of disease was found, except some slight streaks of congestion in the mucous membrane of the stomach. The skull-cap was then removed. The membranes and cerebrum were healthy throughout. About four ounces of effusion were found in the ventricles. The right lobe of the cerebellum was natural, but in the left lobe near its centre, was found a tumor  $1\frac{1}{2}$  inches in length,  $4\frac{1}{4}$  inches in greatest circumference, and weighing five drachms. When cut into, it presented much the appearance of solid tubercle, but rather firmer, except in its centre, where it was nearly soft. The tumor was not enclosed in a cyst, but seemed in immediate contact with a slightly softened layer of cerebral substance. No vessels were found going to it, nor did it seem to have any real connexion with surrounding parts, but could be turned out of its cavity as a pea-nut out of its shell. The origins of the nerves looked well, with the exception of those of the optic, which were slightly wasted.

The point most worthy of note in the above detail, seems

to be the marked sympathetic affection which existed in the stomach and liver, particularly in the stomach, during the first three or four months of the disease. This was so great as to call at first a large share of attention and treatment to a part in which existed no real change, and which in fact maintained its integrity to the last. On this account the case seems to show the importance of a more correct knowledge of the various sympathetic affections than has yet been attained, particularly as they throw so much light, when understood, on the etiology of diseases, their seat, and the organ to which our therapeutic means should be directed.

July 18, 1846.

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ARTICLE III.

*Operation on the Closure of the External Orifice of the Vaginal Canal.* By ALFRED E. AMES, M. D., Roscoe, Illinois.

I was called, May 6, 1846, to see a female child, æt. 93 days, who had a perfect closure of the vaginal canal, at the roots of the labia majora and minora, below the meatus urinarius.

On inquiry, the mother informed me that she had just noticed the closure, said the child had always been well, and that there had been no inflammation about the genital organs since the child was born. The body of the meatus urinarius was rather more prominent than natural; no difficulty in voiding urine.

To divide the membrane, we had the labia majora and minora separated, then with the sharp-pointed bistoury made an incision into the membrane closing the external orifice of the vaginal canal, close to the body of the meatus urinarius, with the back of the bistoury towards the meatus. On introducing a silver probe into the incision made, we became satisfied that the vaginal canal was normal, and that the membrane was about two lines in thickness. Then we introduced the directory into the incision made in the membrane, carried it down and backward as far as the fourchette, then divided the membrane on the directory with the probe pointed bistoury. Very little hemorrhage followed the operation. Be-



tween the cut surfaces we placed lint moistened with sweet oil, and ordered it to be changed twice in 24 hours.

*May 12th.*—The parts presented a healthy and normal condition.

## PART II.—REVIEW.

## ARTICLE IV.

*Fevers. Their Diagnosis, Pathology and Treatment.* Prepared and edited, with large additions, from the essay on Fever, in Tweedie's Library of Practical Medicine, by MEREDITH CLYMER, M. D., Prof. of the Principles and Practice of Medicine, in the Franklin Med. College, Philadelphia, etc. etc. Philadelphia: Lea & Blanchard. 1846. pp. 604. 8 vo.

Dr. Clymer has added to these essays an entire chapter on Typhoid Fever, and other valuable additions, amounting, as he informs us in the preface, to about one-half the volume; and which relate principally to the fevers of the country.

There are thirteen chapters, which comprise, The General Doctrines of Fever, Continued Fever, and Hectic Fever, by Dr. Christison. Typhoid Fever, by Dr. Clymer. Plague, Yellow, Intermittent and Remittent Fevers, by Dr. Shapter. Infantile Gastric Remittent and Puerperal Fevers, by Dr. Locock. Small Pox, by Dr. Gregory, and Measles and Scarlet Fever, by Dr. George Burrows.

The subject of Fevers being at this period one of much interest to every practitioner, we shall transfer to our pages some of Dr. Clymer's and the associated writers' views which are applicable to the fevers of the season.

The following extract, quoted by the editor from Professor Alison, points to the true cause and pathology of congestive fever, and through them, to the proper treatment.

“Even the peculiarities of that form of fever which has been described under the name of *Congestive*, are not to be explained by the mere circumstance of internal congestion, the existence of which, in the vessels, and especially in the veins of internal parts, in these circumstances, is admitted. For although congestion or stagnation of blood within the cranium may be held to be a sufficient cause of stupor, yet we are so far from regarding congestion in the great veins leading to the heart as a sufficient cause for deficient action there, and consequent feeble pulse and cold skin, that we have already stated the accumulation of blood in the great veins to be apparently the chief cause of the *increased* action of the heart, or the *reaction*, in the more usual form of fever. In the cases, therefore, where the



congestion in the great veins fails to excite this reaction in the heart, some peculiar cause must have operated to prevent the heart from being usually excited, by the application of the unusual quantity of its natural stimulus; *i. e.*, the circumstance of unusually great and permanent congestion in the great veins, in the commencement of fever, is in all probability the effect, not the cause, of a peculiar sedative influence affecting the vascular system in these cases; such an influence naturally leading to accumulation of blood in the great veins, for the same reason that determines the accumulation there after death.

“That congestion of blood in the great veins is not *per se* adequate to account for the phenomena of any form of fever, appears distinctly from the fact, that no form of fever follows the great congestion there in cases of suspended animation in syncope, or from extreme cold, or submersion in water.”

Dr. Clymer has chosen that classification, which every physician in his practice adopts despite all systems of Nosology.

“The simplest arrangement, and perhaps the best for practical purposes, is that founded on the peculiar phenomena which are constantly presented by the different forms of fever, constituting the types. In one variety, we have the febrile phenomena interrupted absolutely or incompletely at certain periods; whilst in another, the train of phenomena proceeds in an uninterrupted series; and a third is accompanied with a peculiar and characteristic eruption. The order that we shall observe, therefore, will be:

I. CONTINUED FEVERS.

II. PERIODICAL FEVERS.

III. EXANTHEMATOUS OR ERUPTIVE FEVERS.”

He has given us a brief practical description of Ephemeral Fever, which may perhaps account to the minds of some for fevers “broken up” after the first exacerbation. And which until reminded of the existence of such a form, they have considered as Remittents.

“*Diagnosis.*—It is often extremely difficult to decide, at the outset of an attack, whether it is a case of ephemeral, periodic, or continued fever. The absence or presence of the causes just enumerated, may assist our inquiry. Whilst the non-occurrence or insignificance of the initial chill, and the continuation of the fever beyond six or eight hours will often enable one to distinguish it from intermittent fever; the amount of vascular excitement, the slight depression of the nervous powers, and the very transient duration of the premonitory

symptoms will serve to distinguish it from the more serious varieties of fever."

In the chapter on Continued Fever, Synocha, Synochus and Typhus are treated of. The last will be read with interest in many of the more northern portions of our section of country, by those who think with Dr. Clymer that Typhus and Typhoid Fever are not essentially different.

He gives a table of the maximum frequency of the pulse in 181 cases of Eruptive Typhus, in which the average maximum of 90 cases in the male is 107,5, and in the greatest number of instances (20) is at 96. The average in 91 cases in the female is 114,1, and in the greatest number of instances (23) is at 108. The average of male and female is 110.8.

We insert Dr. Christison's account of the petechiæ in Typhus, not only because it is valuable and interesting in itself, but also that there have been seen in some portions of the country cases of a Remittent Type, in which petechiæ of the 2d variety made their appearance. It has not been observed that Typhoid symptoms were developed in these cases which received appropriate treatment.

"Three kinds of eruptions have often been comprised under the generic term petechiæ:—1. One, which is exceedingly rare, but which is occasionally remarked in the advanced stage of bad synochus or typhus for a short time before death, consists of small, pale brown, lenticular spots, without any elevation or roughness of the skin, and much resembling freckles. 2. Another, which is very common in some epidemics, and especially where the early stage of fever presents the inflammatory character, forms small, dark, reddish-black, roundish, accurately circumscribed, and often closely crowded spots, without elevation of the skin, and much resembling fleabites. Their resemblance to fleabites is such, that on the one hand, the latter are often mistaken for petechiæ; while on the other hand, some physicians will insist that real petechiæ are nothing else but fleabites. The two appearances, however, cannot be mistaken by a careful observer, because the petechial spot does not present the little dark point in the centre, which may be invariably seen in the fleabite, either with the naked eye, or with the help of a common magnifier. Sometimes the petechiæ are few in number, and readily escape notice; in other instances, on the contrary, they are excessively crowded. Their usual seat is upon the breast, shoulders, forearms, and legs; but they may be seen also on all other parts of the body except the face. They generally make their



appearance towards the close of the first or beginning of the second week, and certainly not on a specific day, like the eruptions of the febrile exanthemata, as some have maintained. They are observed to occur chiefly in severe cases, but, from frequent observation in the epidemics of Edinburgh, they do not necessarily indicate danger; on the contrary, the cases in which they appear have proved rarely fatal. The appearance is owing to a thin stratum of extravasation on the surface of the true skin, and appears connected with increased force of the circulating system, being most characteristic where reaction is high. This form of petechial eruption has become rare (1838) for a few years past. 3. The third variety presents more or less numerous spots, of a paler, rather lake-red or rose red tint, irregular in shape, not distinctly circumscribed, but rather diffuse round the edge, with sufficient elevation of the skin to impart a sense of roughness to the finger, when drawn over a part where they are numerous. They present some resemblance to measles; and at times are so like that eruption, that the other symptoms must be looked to for the diagnosis. They present the same variety in number with the dark circumscribed petechiæ; they are usually most abundant over the chest, shoulders, forearms, legs, loins, flanks, and abdomen; and they are not unfrequently found loosely scattered round the loins, flanks, and upper part of the belly, although not visible anywhere else, so that, if not sought for, they may escape notice altogether."

Our limits do not permit us to make extracts from the treatment of Continued Fever, which with the matter added by the editor, will be found very full and practical; but pass to his chapter on Typhoid Fever, which has been written specially for the Middle and Northern States, but which will be equally applicable to some localities in the North West. The authorities referred to are principally American.

In regard to the unsettled question of the identity of Typhus and Typhoid Fevers, the author says:—

"The question of the identity of typhus and typhoid fever has been one of great interest, and respecting which much diversity of sentiment at one time prevailed. Whilst the British physicians held, with great unanimity, the opinion that, though different varieties, they were the same species of fever; the French and American authorities proclaimed their essentially dissimilar nature. For obvious reasons the present work is not suitable for the discussion of this point; and it is our intention merely to state the grounds on which those who contend for the non-identity of the two diseases base their

opinions, and to ascertain how far they are in accordance with the observed facts. The leading features of difference insisted on to prove that the two varieties of fever—typhus and typhoid—are radically distinct, are, 1. The character of the eruption, which in typhoid fever consists of minute lenticular papulæ, disappearing on pressure, and thinly scattered over the abdomen and chest; whilst in typhus the spots 'are more irregular in their shape and size; not elevated above the adjacent skin; partially disappearing on pressure, or not at all; often abundant, or even confluent; in many cases occupying the skin of the extremities as well as that of the entire trunk, and usually of a duller and more dusky colour than in the former disease.' 2. The infrequency of the abdominal symptoms—diarrhoea, and pain and gurgling on pressure in the right iliac region—in typhus, which occurs so constantly in typhoid fever; and, 3. The absence in typhus of the characteristic intestinal lesions—specific alteration of the agminate and isolated follicles—of typhoid fever.

Let us briefly examine how far these asserted differences are sustained by observation, assuming, for the purpose of having some distinctive or pathognomonic trait assigned to typhoid fever, that a diseased condition of the glands of Peyer is necessary to constitute the disease."

To prove the opposite, he refers to Dr. Gaultier de Claubry, Dr. Landouzy, Dr. Felix Jacquot of France, Dr. John P. Mettauer of Virginia, Dr. Thomas Carroll of Cincinnati, his own experience in the Philadelphia Hospital, in Dublin and in London, from which he arrives at the subjoined conclusions.

"From these facts—few, it must be acknowledged, yet positive as far as they go—it is evident, 1. That there is no necessary or constant connection between the kind of eruption, and the abdominal symptoms or lesions;—that the lenticular eruption of the Paris fever, and the maculated, measly eruption of the Irish typhus, may exist conjointly with the diarrhoea, and pain and gurgling in the ileo-cæcal region, and with enlarged or ulcerated patches of Peyer. And 2. That there is no constant relation between the abdominal symptoms—pain, gurgling, and diarrhoea—and the intestinal lesions, since all these symptoms may be absent, not only in individual cases, but in a portion, or in the whole of those attacked in the course of a given epidemic.

"We would inquire whether the group of symptoms known as typhoid fever is perfectly identical at all times and at all places; and further, if the essential characters of typhus are so constant or defined, that it can be taken as a fixed term of comparison? Do not epidemics of typhoid fever differ in their



prominent phenomena, constantly, from sporadic cases, as well as from each other? Are there not a number of accessory circumstances, so subtle as to escape observation, perpetually modifying the influence of causes on the organism? General conclusions should not be drawn from limited observations, or from witnessing any disease so generally prevalent as the one under consideration, in a single district, or even country, and during a limited period of time. And we cannot avoid thinking that those who regard these two forms of fever as distinct and separate *species*, are premature in the expression of an opinion upon a subject in which there are, as yet, wanting many essential elements to warrant a positive judgment."

The chapters on intermittents and remittents contain much that is very interesting, particularly, those portions which give an account of the congestive or pernicious forms, which under various modifications have been so fatal in various parts of our Western country. Dr. Shapter's modification of intermittents generally are the inflammatory, congestive and malignant, we give his description of the latter two.

"The *congestive* form of ague is throughout of adynamic character. The cold stage, which is much protracted, is ushered in by vertigo, deep-seated pain of the head, followed by general trembling rather than rigor. The pulse is small and weak, and not unfrequently faintings and coma add to the alarm. The hot stage struggles on slowly, and, as it were, unwillingly, and then is but imperfectly developed; so that, instead of the usual characters of this stage, there is only a low oppressed condition. The sweating stage is scarcely perceptible. The period of intermission is marked by a pale, worn, contracted countenance, general oppression of the system, constricted and anxious breathing, and small, hard and frequent pulse. The surface of the body is colder than usual, with an incapacity of retaining the surface warmth at the same time that the internal parts feel heated and irritable. This modification of ague, however, seldom occurs, excepting in hot countries, where there is much prevailing marsh exhalation, and then only in those constitutionally nervous and irritable, or whose health has been impaired, and the powers of the system exhausted by previous disease. BOISSEAU states, that it occurs in quotidians, double tertians, tertians, and quartans; it sometimes takes on alternately these different types, whilst at other times they are irregular. (*Pyrélogie Physiologique*.) The duration of the congestive intermittent is but little known: it occasionally succeeds the adynamic continued fever; though, more frequently, it passes into the continued form. It is a peculiarly fatal variety of ague.

The *malignant* form of intermittent fever has been particularly described by ALIBERT. (*Traité des Fièvres Pernicieuses Intermittentes*.) After the second, third, or fourth accession of the febrile paroxysms, the cold stage becomes either shorter and more intense, or else very much prolonged; and in place of the phenomena usually attendant on the hot stage, urgent symptoms, hitherto not observed, show themselves; or those which had already characterized this stage are much exasperated. The sympathetic phenomena which specially characterize the febrile accession become less apparent, or cease almost entirely, while symptoms of local irritation, hitherto unperceived, become developed. Nevertheless, the paroxysm passes off without any very well-pronounced perspiration, but a fetid odour is often exhaled from the body. The patient in part recovers his powers and appetite, and sometimes even does not complain of any particular uneasiness. On the accession of the succeeding paroxysm, however, colliquative hemorrhages and petechiæ often make their appearance; and not unfrequently death ensues at this period, or the disease may be protracted to the third, fourth, or fifth paroxysm.

Such is the outline of what French writers have termed *Fièvres intermittentes pernicieuses*: they usually occur in warm climates in persons of broken-down constitution, as well as when the intermittent fever is complicated with organic."

Dr. Clymer has to this added the annexed description of a similar form of fever which we give entire.

"The subject of the pernicious forms of intermittent fever is one of great interest to the practitioners of an extensive district of this country, where these varieties prevail to a greater or less extent. Those forms to which the term *pernicious* is applied, are, in reality, cases characterized by the greater violence of the accompanying congestions, and where, from the importance of the organs implicated, death is imminent at the third or fourth accession.

"A highly interesting account of an epidemic ague, of the *pernicious* variety, occurring in Persia in 1842, has been given by Dr. CHARLES W. BELL, Physician to the British Mission. It was essentially a quotidian ague, characterized by intense general congestion of the venous system. The disease had several modes of commencement. 'Sometimes it began at once, by the patient becoming suddenly insensible without previous symptoms; at other times it was preceded by formal ague. In many instances, again, the patient would suffer for some time previously from intermitting headache, daily increasing, and great want of sleep; he would then have one attack of ague, and, next day, at the same time, would sink down insensible. This was the form of disease from which



the greatest number of deaths took place, and obtained for the malady its Persian name TAB-I-GHASH, or "fainting fever." During the insensibility the pulse was feeble and the extremities cold. From this state many were never roused; but if they were, the pulse gradually attained power, and the patient came slowly to his senses, complaining of intense headache and a feeling of oppression at the heart; a low kind of fever then came on which was succeeded by very imperfect perspiration, generally confined to the head and chest. Next day, about the same hour, insensibility returned, and each attack continuing longer than the preceding one, the period of death depended upon the strength of the patient or violence of the disease; most frequently, however, death took place on the third attack. As the end approached the secretion of urine ceased, the efforts of the heart at reaction became feebler, the skin felt like that of a corpse, cold and damp, the body became purple and mottled, and the pulse became less perceptible at the wrist: at length the patient was seized with tetanic convulsions and died. In these cases, as often observed in cholera, the feet began to get warm shortly before death, and just as the warmth had spread up the legs and reached the trunk the patient died. Indeed, were other symptoms wanting, I should consider warmth commencing in the feet while the rest of the body was cold, quite sufficient to mark the case as hopeless." In another form, resembling the *algid* of southern countries, there was 'no insensibility, no shivering, little or no perceptible fever, and no perspiration; the primary characteristic symptoms were a fixed pain in the pit of the stomach, extreme tenderness on pressure over the left lobe of the liver and region of the spleen, and extreme tension of the abdominal muscles. One or both of the recti abdominis became hard as a board, continuing for days in a state of constant tension, but without any painful cramps or spasms. Nearly at the same hour each day the patient was observed to become exceedingly anxious and restless, tossing from side to side, sighing and throwing the arms above the head, as in yawning, and the pulse became very small and frequent, and the body damp and cold. By and by, this oppression passed off, the body resumed its natural warmth, and the pulse nearly its natural volume; but this continued quicker than usual, and then to all appearance the patient had very little the matter with him. Each day, however, the oppression of the circulation became greater and the attack continued longer; the pulse now became weaker, and an ice-cold exudation ran off the brow and back of the hands. The struggling of the heart to overcome the load of blood which oppressed it was most painful to listen to,—now almost overcoming the obstruction, the pulse for an instant gaining power, and a partial warmth spreading over the surface; and, again, the force of the heart

succumbing to the disease, and the icy coldness—much colder than death—returning. The craving for iced water was incessant so long as this state lasted. The evacuations meantime were bilious, and the quantity of urine daily diminished, and at length ceased altogether. At length the intermission between the attacks of oppression ceased to occur, the pulse was only perceptible at intervals, and the patient, who up to this time had been perfectly sensible and even able to walk to stool, fell into a state of stupor. The skin now became blue and mottled, and the patient gradually sunk or died in convulsions. Here, also, as I remarked above, some time before death took place, the lower limbs recovered almost their natural warmth. In all the cases I saw of this variety there was much feeling of distension of the stomach and inactivity of the bowels, and sometimes a little vomiting.’ The great and rapid enlargement of the spleen is particularly mentioned. In many instances pain in the region of the spleen was felt before the occurrence of any other symptom. The blood was of a dark, dusky, reddish-brown colour, and in general the serum did not separate from the clot. In those affected with the severer forms of the disease, the blood drawn in the cold fit was always grumous, coming at first slowly or in drops, and coagulating as soon as drawn, even at the mouth of the wound; and no separation of the serum took place. During the epidemic the urine of the people in general was much darker colored than at other times, while in those who were seriously affected it was, if secured at all, like porter, and in very small quantity.”

The treatment recommended for these forms of intermittents is the one that has been found to be the most uniformly successful, and of which accounts have from time to time been published in the American Journals.

“In the congestive form vigorous practice is urgent. Maillet gives an example in which 40 grs. of the sulphate of quinine and 2 drachms of ether were given in 4 oz. of water at two doses, in the course of an hour; a starch opiate injection, with 60 grs. of the sulphate of quinine and 2 drachms of ether, was ordered at the same time, with sinapisms to the legs and blisters to each thigh. Under this treatment the patient began to recover warmth in a few hours, and the heart to act more forcibly; but the next morning the amendment was so slight, that a sinapism was applied to the whole length of the spinal column, and a clyster with one drachm of sulphate of quinine, and three drachms of ether administered; reaction followed with recovery. Every effort must be made to produce speedy reaction. Stimulants should be freely given—



brandy, ammonia, and particularly capsicum—both by the mouth and rectum; bottles of hot water, and hot bricks are to be applied to the extremities; sinapisms to the trunk and extremities, with turpentine fomentations to the chest and abdomen. As the pulse becomes developed, this active and violent treatment must yield to milder stimulants and diaphoretics. Quinine should be administered freely in large doses, by the stomach and in enemata, and it may also be rapidly introduced into the system through blistered surfaces, produced by the application of ammonia, and by inunction.”

Dr. Clymer has also added to remittent fever an account of two fatal varieties, which will complete the description of the pernicious forms.

“A variety of pernicious remittent, is occasionally met with in our southern states, which may be called the *comatose* form, and which resembles closely the same variety of pernicious intermittent already described. The force of the malarious poison seems in such cases to be expended on the great nervous centres. Commencing with slight shivering, the vascular reaction soon becomes intense; the face is full, and flushed; the pulse firm and full, there is strong pulsation in the larger arteries, especially the carotids; deep stupor soon comes on, with dilated pupils, and slow and often stertorous breathing. As the paroxysm abates the stupor subsides, and during the remission, which generally lasts but for a few hours, no alarming symptom is present. On the return of the paroxysm, which frequently anticipates itself, the same train of symptoms appear with increased severity. And this is repeated until recovery or death occurs. The remissions are sometimes very imperfect, and Dr. Boling relates a case of this kind where the patient lay eight days comatose. When called to him, he says, ‘he presented all the symptoms of apoplexy, and nothing revealed the true nature of the case but a disposition to yawn and stretch every morning, continuing from 7 A. M. to 10 A. M., and a slight abatement in the force, and a diminution of a few beats in the frequency of the pulse, with a temporary disappearance of the stertor. During the remissions, while yawning and stretching, his appearance was exactly that of a person just on the point of awaking from a sound and refreshing sleep, and the bystanders, even those who had seen him several times, could scarcely divest themselves of the impression that this was the case, and were in momentary expectation of seeing him open his eyes and address them. The case terminated favourably, the patient waking up during the hour of remission on the 9th morning, and required but little treatment after.’

A form of remittent fever called *congestive*,—and styled by Dr. Dickson, ‘a hideous and pestilential modification,’—prevails to a great extent over a large portion of our northern and north-western states, and is frequently terribly destructive. It commences often as a common intermittent, and the first paroxysm frequently attracts but little attention. After an interval of variable length, another rigor occurs, which may be prolonged for several hours, until reaction or death takes place. This is remarkable for the extreme coldness and death-like hue of the face and extremities. There is violent gastro-intestinal irritation, with incessant purging and vomiting. The discharges are often mixed with blood, and rarely with bile. Dr. Parry, of Indiana, says that they have ‘the appearance of water, in which a large portion of recently killed beef has been washed.’ There is but slight abdominal tenderness, but a sense of weight, and burning heat in the stomach are complained of. The thirst is intense, and unquenchable. The respiration is peculiar; it is described as consisting of ‘a deep drawn double inspiration (or double sigh,) with one expiration;’ the patient complains that he cannot get his breath. The pulse is small, thready, and frequent, beating from 120 to 140 in a minute; it sometimes becomes imperceptible for several hours before death, though generally, it is to be felt to the last. The body is bathed in a cold, clammy sweat, occasionally limited to the face and neck—the skin being of a livid hue and shriveled. There is usually excessive restlessness, the patient continually tossing about, and endeavouring to get out of bed. In many instances the brain is undisturbed, the intelligence remaining until death. In some cases there is severe cephalalgia and even delirium; and in others coma makes its appearance early in the second paroxysm. If no abatement in these symptoms occurs, death takes place in from twenty-four to sixty hours, the patient expiring in great agony. If, however, the remedies have acted, the restlessness diminishes, the skin dries, the pulse falls and becomes developed, and the body gradually attains its natural temperature. Dr. Wharton of Mississippi, observes that “this is a very slow process, as it often requires from twenty-four to forty-eight hours for the heat to travel from the knees to the extremities of the toes.” Dr. Boling asserts that ‘notwithstanding the small and thready state of the pulse, in this variety of pernicious fever especially, the action of the heart will be found strong, as indicated by the loudness of its sounds, and the force of its impulse.’”

The following remarks by Dr. Shapter, on purgatives, deserve to be remembered, especially in those locations, and there are such, where a majority of the patients suffer from



the complication of gastro-enteritis, in the course of the treatment.

“The disease of the general state of the system is to be obviated by the prompt administration of purgatives, in order to clear the *primæ viæ* from the morbid secretions found in the stomach and intestines; the reduction of the over excited heart’s action by bloodletting, and the use of medicines of a diaphoretic nature. With the exception of some of the French writers, all practitioners agree on the necessity of administering purgatives; at the same time they are to be used with considerable judgment, as much mischief frequently accrues from their abuse. If violent and irritating cathartics are too unsparingly administered, they are very apt to set up an irritation in the mucous lining of the bowels, which is attended by consequences so imminent, as often to be the source of more serious alarm than the effects of the disease itself. There can be no greater mistake in the treatment of remittent fever, than the exhibition of a rapid succession of this class of medicines. They tend rather, by their local irritation, to increase the acrid nature of the secretions. At the same time it is absolutely necessary, especially at the onset of the fever, that effective evacuants should be administered; but those selected for this purpose should be but little irritating or drastic in their operation. The use of purging enemata will be found very useful adjuncts to the employment of purgatives, but they must by no means be solely relied on; and where there is much gastric irritation, and there are but few cases where there is none, a small quantity of the syrup of white poppies should be added, the addition tending very much to allay pain and to soothe the system.”

The editor’s remarks on the use of emetics, are very judicious, and agree with the opinions of Dr. Shapter on the same subject.

“Emetics are now generally abandoned in the treatment of this form of fever, it being found that they aggravate the gastric distress, which is usually so annoying. If, however, it is found necessary to empty the stomach at the commencement of an attack, the mildest means that will effect the object, should be resorted to.”

The mode of using quinine in remittents is a question of much importance. And as there is some difference of opinion on this point, we give Dr. Clymer’s views, which we believe will be found a correct guide to its employment.

“With regard to the administration of quinine some difference of opinion prevails. As a general rule, the more decided the remission, the greater its utility; in the inflammatory form, it is generally of little advantage. Where the remissions are well marked, or where there is a tendency to prostration, it is, on the contrary, of the highest value, and should be administered in doses of from five to ten grains, frequently repeated before the anticipated exacerbation.”

The treatment for congestive remittent, is, like that for the intermittent type, supported by the authority of many American practitioners.

“The congestive form of remittent fever requires prompt and vigorous treatment. The chief indications are to procure reaction, and to prevent a recurrence of the paroxysm. To effect the first, sinapisms should be applied over the stomach, chest, between the shoulders, and on the extremities. Blisters are recommended by some practitioners as preferable, whilst others advise that they should replace the sinapisms, when these have commenced to excite irritation of the surface. Stimulants must be freely given internally, quinine, camphor, capsicum, &c. The quinine must be given in large doses, (grs. v. to x.) at short intervals; it should be combined with capsicum or camphor, or if there is severe vomiting, the oil of turpentine may be substituted for the camphor. The evidence in favour of large doses of quinine repeatedly given in congestive fever, is ample and convincing. Calomel is generally combined with the above remedies, and is administered during the paroxysm, to the amount of fifteen or twenty grains.”

With the matter added by the editor this is probably one of the best works we have on fevers. And especially adapted to the wants of the American physician.

H. S. H.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE V.

*The United States Dissector, or Lessons in Practical Anatomy.*

By WM. E. HORNER, M. D., Prof. of Anatomy in the University of Pennsylvania. Fourth addition, with numerous illustrations. Edited by HENRY H. SMITH, M. D., Fellow of the College of Physicians, of Philadelphia, &c. Philadelphia: Lea & Blanchard. 1846. pp. 444. (For sale by Brautigam & Keen, Chicago.)

This is a reprint of "Horner's Practical Anatomy," a work which has for more than twenty years been before the profession, and almost the only one of the same character by an American author. It is a work of established reputation, and the illustrations added to this addition are well chosen, so that it will compare favorably with the best "Dissectors."

D. B.

## ARTICLE VI.

*A Practical Treatise on the Diseases of Children.* By JAMES MILMAN COLEY, M. D., Member of the Royal College of Physicians, London, &c. &c. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1846. 8vo. pp. 414. (From the Publishers.)

This work is one of the publications issued in the Select Medical Library, edited by John Bell, M. D. That it should have been selected for publication, by the erudite and experienced editor of this well known periodical, is in itself sufficient recommendation to the work. The author professes to give a comprehensive view of the diseases of children, with a view to render his work one of reference, and, we think, has succeeded well in his object. Upon some points of pathology and treatment there is some originality, and as regards treatment it is simplified to a degree which we cannot but admire. Our perusal of the work has not been as complete as we could wish, from the fact that it arrived too late for an extended notice. Should our present good opinion of it continue on more accurate examination, we may, in our next number present our readers with a review embracing extracts from its more important portions.

J. V. Z. B.

## PART IV.—EDITORIALS.

## ARTICLE VII.

## COMMON SCHOOL CONVENTION.

In June, 1845, a State Common School Convention was held at Jacksonville, Ill., upon the adjournment of which, it was resolved: "that another should be held at Chicago in the autumn of 1846, immediately succeeding the Agricultural and Mechanical Exhibition then and there to be held." Messrs Geo. W. Meeker, William Jones and Wm. H. Brown, were appointed a committee to make the arrangements, in accordance with the resolution.

We have before us the circular issued by this committee calling upon all the friends of education in the West, to attend and aid to make the meeting profitable and interesting, and stating the objects of the convention and the subjects which it is intended will be discussed. An extract from the circular will give our readers an idea of the objects of the movement.

"The doings of the Convention, or the measures they may adopt, it is, of course impossible for us to announce. We can state however, that the following subjects were selected by the Convention at Jacksonville, and the following persons appointed to prepare essays upon them, which will be read at the Convention at Chicago.

"1. How may a system of Education be so conducted as to afford the best preparation for the various professional, agricultural, mechanical and commercial pursuits? Upon what principles, and to what extent should the course of instruction be accommodated to each class?

"2. Should the same system of education be pursued in regard to males and females, or upon what principle and to what extent should any difference be made?

"3. How can we extend the means of instruction to all classes of community?

"4. How may we accomplish the moral culture and elevation of all connected with our schools?

"5. Can a system of common schools be made efficient without the division of the state into political townships?

"6. Should the communication of knowledge, or the discipline of mind, be the primary object of the teacher? What course and methods of instruction are best adapted to these ends?

"7. How can we best elevate the character and qualifications of teachers?



"8. Are colleges and female seminaries indispensable as part of a system of general education?

"9. Should the course of instruction in colleges and female seminaries be conducted with reference to the preparation of competent teachers, and should legislative aid be granted, at least to the extent of the University fund for the attainment of this end? The nine queries were assigned as follows:

No. 1. J. M. Sturtevant, President of Illinois College.

2. William H. Williams, Jacksonville.

3. Francis Springer, Springfield.

4. Prof. J. B. Turner, Illinois College.

5. A. W. Henderson, Chicago.

6. Rev. C. E. Blood, Madison County.

7. John S. Wright, Cook County.

8. Hon. Wm. Brown, Jacksonville.

9. T. M. Post, do.

If either of the individuals appointed shall be unable to be present, he will be expected to prepare his essay and forward to one of the undersigned, that it may be read. The essays will furnish the basis for discussing the subjects upon which they treat, and if any one should be unable to prepare his essay, it is expected he will procure some one to take his place capable of discharging the duty. The opening address will be delivered by Wm. H. Brown, Esq.

"To teachers, we would say, it is in contemplation to organize a Teachers' Institute immediately succeeding the Convention, convening probably on Monday morning, and continuing from one to two weeks. At the East, they have been tried for the last few years with the most happy results. The plan pursued, is to organize a regular school of the teachers, the most experienced alternately being appointed to instruct the others. Methods of imparting instruction in the various branches are presented, together with plans of government, discipline, &c. The benefits to teachers, of thus meeting together to learn the improvements in the art, profiting by each other's experience, and of increasing their interest and pride in their high calling, must be apparent to the most casual observer. It is expected that this Western Institute, will number several hundred members, all of whom will be gladly entertained by our citizens without charge; and when they return home, they will be prepared to organize county and neighborhood Institutes all over the West. No teacher who appreciates the importance and dignity of his vocation, will refuse to spend two or three weeks in going to and attending upon such a meeting; and if the parents realize the value of good instruction, they will not refuse to be at the little expense of the journey, which will be repaid with a thousand fold profit to their children. No teacher will regret his

attendance, but it is to be feared very many of them will regret not having made sufficient effort to be present.

Teachers, too—those who know from experience the wants of the West as to education—are the ones of all others who are needed to make the proceedings of the Convention preceding the Institute practical and profitable.”

The citizens of Chicago, at a meeting held on the 16th of July, appointed a large committee of arrangements, to make preparations for the entertainment of delegates, &c. &c. The following were the resolutions adopted on that occasion:

“*Resolved*, That we congratulate our fellow citizens in having our city selected for a Western Educational Convention to be held in Oct., and that we pledge ourselves to use all reasonable exertions to make the meetings and visits of the members among us, both pleasant and profitable.

“*Resolved*, That we most cordially tender the hospitalities of Chicago to all who will attend, and also to those who may remain to aid in the formation of a Teachers’ Institute.

“*Resolved*, That the following persons be appointed a Committee to see that each member of the Convention is provided with a place of abode; that as they arrive in the city, they be requested to record their names at the Prairie Farmer Office, where some one will be in waiting to direct them to their lodgings, and that those who attend be requested to send their names at an early day to Geo. W. Meeker, Esq., that a probable estimate may be made of the number that may be expected.”

It is expected that the Convention will be addressed by a number of gentlemen interested in the subject, as will be seen from the following:

“It may increase the desire with some to state that HENRY BARNARD, Superintendent of schools in Connecticut and Rhode Island, and Prof. DEWEY of Rochester, N. Y., are expected to be present; and that it is possible HORACE MANN, superintendent of Schools in Massachusetts, and other distinguished friends of Education from abroad may also attend. No efforts will be spared to bring together as many experienced and energetic friends of the cause as can make it within their power to attend on that occasion!”

We hope that our readers will exert their influence in procuring a large attendance, as our profession as well as other classes of the community, is deeply interested in the cause of General Education. From no one source are we to antici-



pate more hopeful influence in the abolition of empiricism, and a proper appreciation of true medical science, than from the general enlightenment of the public mind. Thursday evening, October 8th, is appointed for the opening ceremonies of the Convention.

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ARTICLE VIII.

STATISTICS OF MEDICAL SCHOOLS.

We have received the Catalogues and Announcements of a number of Medical Institutions, from which it would appear that the number in attendance during the last session, and of those who have entered the ranks of the profession, will compare well with those of previous years. A general effort seems to have been made to increase the means of instruction for the coming session, each Institution vying with the others in presenting to students facilities for study as the best means of inducing attendance. We give below a list of the Institutions and the numbers in attendance upon the lectures of 1845-46, and the graduates of '46, as far as we have been able to learn.

	Students.	Graduates.
Medical College of Georgia,	112	33
University of Pennsylvania,	462	168
Jefferson Medical College,	469	170
Transylvania University,	171	64
Albany Medical College,	115	42
Louisville Medical Institute,	245	78
Willoughby Medical College,	164	30
Medical College of Louisiana,	103	19
Geneva Medical College,	178	
Medical School of Maine,	73	19
Harvard University,	159	31
Yale College, (Medical Institution,)	53	20
University of the City of New York,	407	131
College of Physicians and Surgeons, (N.Y.)	200	38
Western Reserve College, (Cleveland,)	160	50
Berkshire Medical Institution,	142	35
University of the State of Missouri,	92	29
St. Louis University,		11

Medical College of Ohio,	195	46
Castleton Medical College,	140	36
Rush Medical College,	50	10
Maryland University,	147	40
Indiana Medical College,	81	18
Medical College of South Carolina,	214	74
Pennsylvania Medical College,	94	38
Vermont Medical College,		24

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ARTICLE IX.

OUR EXCHANGES.

*The Buffalo Medical Journal and Monthly Review of Medical and Surgical Science*, now in its second volume, has been much enlarged and improved in its appearance. Its accomplished editor, AUSTIN FLINT, M.D., is indefatigable in his efforts to render it worthy of the patronage of the medical public, and his efforts are seconded by the labors of several scientific gentlemen of note in his vicinity. No. IV, Vol. II. for September, is before us, and is replete with valuable matter. We always hail the arrival of this periodical with pleasure.

*The Western Lancet and Medical Library*, edited by L. M. LAWSON, M. D., and published at Lexington, Ky. has also been much enlarged, and is issued bi-monthly. Additionally to the Journal there is appended a library department, in which a valuable work on Auscultation is in progress of publication, a portion being appended to each number.



## PART V.—ABSTRACTS.

## ARTICLE X.

## TRISMUS NASCENTIUM.

I. MARION SIMS, M. D., of Montgomery, Alabama, in the April number of the American Journal of Medical Sciences, has published an interesting paper, in which some new views, particularly those relating to its cause and treatment, are advocated. Anything which promises to elucidate this imperfectly understood subject is especially valuable.

Dr. Sims insists that the true seat of the disease is in the spinal cord, that its morbid anatomy consists first in a congestion, and then in a rupture of the minute veins and capillaries of the medulla spinalis, producing extravasation, which view is supported by Goelis of Vienna, Thompson of Philadelphia, and M. Billard. The cause of this venous congestion etc., is a continued dorsal position of the infant, associated with an imperfect ossification of the cranial bones. Six cases are detailed, three occurring in his own, and three in the practice of Drs. Boswell and Jones, to whom the author had suggested his ideas of the pathology of this affection. In the first case the child had lain during the whole of its illness exactly in one position all the time; the weight of the head resting wholly on the os occipitis. The fontanelles were open and very large, particularly the anterior. The bones were loosely attached by their commissures, and the os occipitis was pushed in on the brain, being over-lapped for a quarter of an inch or more along the whole course of the lambdoidal suture, by the ossa parietalia.

In the second case the infant had lain on its back ever since its birth, thirteen days, resting principally on the mother's or grandmother's arm, and at the time of Dr. Boswell's visit was held by the latter with the occiput resting on her arm. The occipital bone was considerably pushed in, and overlapped by the parietal bones. In the third case the infant was lying on its back, with some coarse cloth doubled under its head; the overseer said he always found the child lying on its back. The os occipitis was pushed deeply under and overlapped by the parietal bones. In the fifth instance,

the child was either lying in the objectionable position with its head on a pillow, or held on the lap with its occiput on the nurse's patella. The position of the cranial bones was as in the foregoing cases. In the sixth case, the position of the child and of the cranial bones were essentially the same; and in the fourth case the symptoms were produced by a tedious labor, by which, as the mistress of the mother said, the child's head was "mightily mashed."

The rationale of the pathology of this disease is as follows. When the foetal cranium is not sufficiently ossified to regain its proper shape after parturition, by its own elasticity, or when the child is constantly retained in the positions before described, with the weight of its head resting on the occipital bone, especially when the head is supported by an unyielding substance, the whole cerebral mass will be displaced. The cerebellum will be compressed between the fossa cerebelli and the tentorium, and will be tilted forwards so as to produce great pressure on the whole tract of the medulla oblongata as it rests on the basilar process of the occipital bone. The circulation through the sinuses and veins of the brain is retarded, the posterior edge of the foramen magnum constricts that portion of the medulla-spinal veins which empty their blood into the inferior cerebella veins; whilst the medulla oblongata compresses that portion of the same veins which run forward over the anterior or lateral edges of the foramen magnum to empty into the pretrosal sinuses; thus producing congestion of, and extravasation from the medulla-spinal veins, which form a delicate tortuous network around the spinal cord, between the pia mater and the arachnoid.

In the only case in which an examination of the spinal cord was had, there was found a coagulum of blood occupying the spine its whole length, enveloping perfectly the medulla spinalis, thicker as it approached the brain. The spinal veins were full of black blood.

It may be objected to this pathology and its causes, that as the occipital bone is more or less displaced inwards and upwards in every labor, this disease should always or more frequently occur. To which, the following is an answer, as well as being a part of the explanation of the manner in which the extravasation occurs. Extravasation does not take place as soon as the constriction is made at the edges of the foramen



magnum, because the medulla-spinal veins communicate with the great spinal lying exterior to the dura mater, and thus the blood is carried into the general circulation by the anastomoses with the vertebral, intercostal, azygos, lumbar, and sacral veins; and except in extreme cases, the compression in parturition is insufficient to produce the symptoms.

The case in which the child was born with its head "mightily mashed" is an illustration of the fact, that the compression at this period, when the bones of the head are much less ossified than usual, does occasionally produce trismus nascentium. In this instance it was present from the hour of its birth. But if the child remains for a considerable period in the position heretofore so often referred to, with the occipital bone forced in on the brain, the spinal veins all become congested. In this manner, the dorsi-spinal veins, which receive the blood from the muscles of the back, carry it horizontally forward between the vertebral arches into the meningo-rachidian, as they lie on the dura mater of the cord; they carry it forward into the general current of the circulation, emptying, by transverse branches, into the vertebral, superior intercostal, vena, azygos major and minor, and into the lumbar and sacral veins. This chain of venous trunks runs the whole length of the spinal column, and yet their contents are passed mostly horizontally forwards. There is no vis-a tergo to drive the blood horizontally forwards, or, as the child lies on its back, perpendicularly upwards, it almost ceases to flow, and the medulla-spinal ligated above, and dammed up on all sides, having no outlet for the blood brought down by the anterior and posterior spinal arteries, must necessarily yield, and pour out their contents into the dura mater.

The treatment consists in a rigidly careful prophylaxis. After the extravasation of blood the patient must almost necessarily perish. Of the six cases given two recovered, and in these as in the others, the treatment pursued was that of changing the position of the child, so that the weight of the head should fall on the parietal protuberance, on a soft pillow. When nursed of course the same precautions are to be observed. The application of blisters to the spine (in conjunction with proper posture) is suggested by Dr. Sims.

H. S. H.

## PART VI.—SELECTIONS.

1. *On the Cure of Eruptions of the Head and Face in Children.*\*—[M. Trousseau makes some interesting remarks, in his *Journal de Medecine*, upon the rules that should guide the practitioner in endeavoring to heal the eruptions, sores, &c., which affect the head and face of young children. To avoid circumlocution, we will employ, in the extracts we make from the paper, the term by which these are designated in France—*les gourmes*—equivalent to our appellation “breakings out.”]

It is a popular opinion that danger attends the attempt to heal these, and this is sometimes true when their manifestation is connected with a morbid diathesis. Others, however, unconnected with this, do much mischief, and should be healed at once. A diathesis may be acquired or congenital; and the *suppurative diathesis* is that, which of all others, is most evidently acquired. The “*gourmes*” are, indeed, generally one of the manifestations of this; while in other cases the *dartrous* diathesis, which is usually hereditary, plays an important part in generating the eruption. The form of the “*gourmes*” will vary, according as one or the other of these prevail. Impetigo, ecthyma, impetiginous eczema, intertrigo, furunculus, superficial phlegmon, and ophthalmia, are more especially connected with the suppurative diathesis; while lichen, psoriasis, eczema rubrum, pityriasis favus, and chronic inflammation of the eyelid, are more often dependant upon the dartrous diathesis.

“1. When, from distress, neglect, or other cause, a superficial phlegmasia becomes in the course of several months converted into a suppurating sore, in the groin, behind the ears, or upon the scalp of the child, the economy, which at first suffered from the presence of an useless discharge, accustoms itself to it to such an extent that, although its suppression at an early period would have been very advantageous, this must now be accomplished cautiously, or disease and ill health will result. 2. Again, when an impetigo suddenly develops itself in a child previously in ill health, and becomes chronic, the health may become manifestly improved as long as the eruption continues. It is evident that, for a certain period at least, it should not be meddled with, and even then that its cure should be very cautiously undertaken. 3. The development of the “*gourmes*” may be the signal of serious disorders in a child prior to this in good health. In this case, their cure, if fever be present, should be set about at once, without any fear of the pretended effects of a retrocession. 4. When a child’s health is good, we must endeavor by every means to prevent the establishment of the “*gourmes*.”

\* Medico-Chirurgical Review.



for, if suppuration be accidentally established, it may give rise to other suppurations—in fact, generate a suppurative diathesis. This diathesis again may manifest itself, not only on the skin and mucous membranes, but also in the internal organs; and thus, in children suffering from “*gourmes*,” variola, rubella, scarlatina, &c., are always more fatal. 5. When the “*gourmes*” invade important parts, as the eyes, nasal fossæ, auditory canal, &c., we must use every means to prevent their extension.

“*Treatment*.—The superficial *excoriations* which are found behind the ears and between the folds of the skin in gross children, usually arise from negligence, and often disappear upon the mere observance of cleanliness. Soapy baths, dusting them with lycopodium, or the interposition of lint moistened in olive oil, usually suffice to dry them up; but when they are obstinate, white precipitate ointment, (3j. ad 3x. axung.) or Galen’s cerate, may be employed. Frequently, to cure the intertrigo behind the ears, it suffices to take care that the string of the cap be not too tightly tied, or to prevent the surfaces of the skin from coming in contact with each other.

*Impetigo*, *impetiginous eczema*, and *ecthyma* in their *acute* form require special treatment. Dr. Trousseau, regarding the two first as true eruptive fevers, just as scarlatina, variola, &c., is careful in not suppressing them too rapidly, although he does not encourage their development. So far from this, believing with Sydenham, that our object should be to prevent eruptive diseases becoming confluent, he prescribes prolonged baths, abstinence, acid drinks, and mild laxatives. The children are not to be too much covered up nor to be kept in bed. Excessive cleanliness is to be observed, and great care taken that they do not scratch the pustules, and diffuse the disease with their nails over other portions of the body. When the febrile action has ceased, we have to do with a mere local disease, and must get rid of it as soon as possible. Unfortunately, however, *impetigo* oftentimes succeeds to measles and scarlatina; in which case, our proceedings must be more circumspect. If the *impetigo* be too rapidly healed, in this case the lungs, or some other internal organ, will very probably become diseased, we having thus destroyed the revulsive affection of the skin which acted as a preventive, or as a curative if they were already affected. There are circumstances, however, in which such caution would be misplaced. Thus a violent inflammation of the ocular mucous membrane may spread to the eye itself, or a very severe *eczema* behind the ear may give rise to dangerous or even fatal enlargement of the cervical glands. In both these cases we must at once cure the eruption, as it gives rise to greater evils than we have reason to fear from its repercussion.

“When the *impetigo* and *eczema* become chronic, and the

condition of no internal organ causes alarm, I treat them with baths, ointments, lotions, purgatives, blisters, or depuratives. *Alkaline baths* are the best of remedies when the disease is attended with itching. To 75 or 100 quarts of water I usually add from 12 to 20 drachms of sub-carbonate of soda or potass. These baths most effectually clean the skin, soften the crusts, and relieve the pruritus. The dreadful suffering this last causes proves its relief alone is no slight advantage. With a solution rather stronger than that employed for the baths, lotions may be made and locally applied two or three times daily. These baths are suitable for the *dry forms of eczema*, for *lichen*, and for *pityriasis*. But when the *eczema* is very *acute*, and is accompanied by great redness and abundant discharge, *mercurial baths* are to be preferred. I prepare these by adding to 50 or 70 quarts of water three or four scruples of corrosive sublimate, dissolved in 1 oz. or  $1\frac{1}{2}$  oz. of alcohol. I have used these baths for fourteen years in every variety of darts affection of the skin, with the greatest advantage. Some practitioners consider them dangerous, but I order about a thousand annually, and even for women in the weakest state and children of the earliest age without ever seeing any accidents result from their employment. I have had children placed in these baths, half the skin of whose bodies had been destroyed by eczema, and no injurious absorption of the mercury has taken place, while the epidermis has become regenerated in a few days. Very young infants should not be kept in the bath more than quarter of an hour at the farthest, but those who are more than a year old may be retained in for half an hour. The severest forms of *eczema*, *lichen*, *erythema*, and *impetiginous eczema* soon yield to these baths, and they form the most appropriate treatment of the *syphilides* of infancy. In simple, chronic *impetigo*, I find *sulphureous* baths, formed of 1 or 2 drachms of sulphuret of potash to 50 or 70 quarts of water, best. But they are especially indicated in children covered with furunculi or little sub-cutaneous abscesses. The action of these baths is no doubt chiefly topical, for ointments composed of the same materials and applied to circumscribed spots are as useful; but when we find the alkaline baths correcting acid urine, and the mercurial baths relieving syphilis, it is evident that some portion of their material is absorbed, as is also shown by the odour which the sulphureous baths impart to the secretions. Indeed, experience has proved the efficacy of alkalis and mercurials, taken internally, in moderating the darts diathesis, which manifests itself in herpetic eruption.

When the affections of the skin are very limited, *lotions*, composed of the same materials, in larger proportions than in the baths, may be substituted. The strength of these must depend upon the susceptibility of the skin, and condition of



the lesion; but the practitioner must not be afraid of using them pretty strong, as the temporary irritation they excite is often advantageous to the affection. In the treatment of "*gourmes*" of the hairy scalp, the sulphuret of potassium may be employed in such strong solutions as to be almost caustic. The *temperature* of these lotions should be as *high* as can possibly be borne. This may seem strange advice at first, but doubtless much of the efficacy of the vapor bath in cutaneous affections depends upon the great heat thus produced, and the success attendant upon the employment of infusions of simple herbs by empirics in like manner results from their using these very hot.

"Among the *ointments*, those containing *mercury* occupy the very first place. White precipitate and calomel are usually to be preferred to red precipitate; but nothing absolute can be stated, for in apparently identical affections, sometimes the one and sometimes the other preparation proves most efficacious. The two former may be used in the proportion of one part to five or ten of cerate, and the red precipitate half as strong. In some children, lard, and in others cerate, forms the best vehicle. In some diseases of the hairy scalp, alkaline or sulphureous ointments are preferable to the mercurial ones, and this is the case especially in the moist and scabby forms. In the dry and squamous forms, ointments formed of mercury, of pitch, or of sulphate of copper, are highly useful. But I cannot too often repeat, that we must try various means, and neither allow ourselves to be too much encouraged by former success, or discouraged if we find a remedy useful in some cases of no avail in others. Even for the same disease, the practitioner should always be provided with a certain variety of remedies, which will all, some day or other, be required.

"I now come to the consideration of the employment of *blisters*. And first, let it be observed that a substance, such as Burgundy pitch, croton oil, or mercurial ointment, which, when applied, sometimes gives rise to the production of a local crop of vesicles, occasionally also leads to a *general* eczema, first acute and then chronic. This is a rare occurrence in men, rather more common in women, and very frequent in children. A few months seldom pass without my seeing, in hospital or private practice, an acute, simple or impetiginous eczema attack children, after the unavoidable employment of a temporary blister in pneumonia. Generally the disease assumes a chronic character; and if we consider that, up to this time, the child was not the subject of any cutaneous affection, we must admit the blister has been at least the occasional cause of its production. Seeing, then, that in a healthy skin a blister may develop a chronic cutaneous affection, ought we to attach much importance to this means for the treatment of

"*gourmes*," and rather ought we not reject it in the majority of cases? I have now in my wards a young child who, when the subject of a slight lichen upon some few points of the skin was ordered a blister by its attendant. A few days after, the arm to which this had been applied was covered with eczema which quickly spread over the rest of the body. I have frequently, in obedience to routine or theory, applied blisters to children affected with "*gourmes*," but have often repented doing so, and seldom seen benefit result. Believing, then, blisters only cause additional irritation without relieving that already existing, I prescribe them in cutaneous affections; but I employ them in treating the "*gourmes*" of the mucous membranes. Experience has often shown me disease behind the ear, or of the hairy scalp, alternating with ophthalmia or chronic eczema of the nasal fossæ, as if the two affections were incompatible. In this case, a blister to the arm is generally useful, although sometimes the derivation will not establish itself in the direction chosen by the attendant, but obstinately tends towards its original route. We may leave the blister on the arm, at the same time endeavoring to encourage the fluxion where it seems most willingly and beneficially inclined to place itself. But if blisters are of use in the cure of these, so to say, *alternating* "*gourmes*," they are not so in "*gourmes*" resulting from *propagation*. Thus, we may often see an impetiginous eczema gradually invade the forehead, eye-lids, conjunctiva, the rest of the face, and penetrate into the nose. I call this *propagation*, and in such a case blisters are of no avail. But if an ophthalmia replaces the eczema of the skin, which in its turn acquires predominance when the ophthalmia is relieved, I call it *alternating* or *compensating*, and here blisters are, in general, useful. If they are useful here, they are imperiously demanded when a bronchitis, an enteritis, a pulmonary, or intestinal catarrh is set up, and alternates with the cutaneous "*gourmes*;" for all these are but other manifestations of the same diathesis which a true pathologist must never overlook.

"To decide upon the exhibition of *purgatives* is also somewhat difficult. The popular idea is, that these medicines constitute our sheet-anchor in treating "*gourmes*." If a somewhat severe diarrhœa occurs in a child subject to these affections, we observe on the very first day the eruption becomes paler, and if it continue, the inflammatory fluxion entirely disappears, and the cure may be effected without any topical remedy. If, however, the diarrhœa is naturally, or under the influence of medicine, arrested, you find the cutaneous affection almost immediately take on all the marks of activity it had lost. So that the antagonism between the skin and the gastro-intestinal mucous membrane is evident enough. With some practitioners, an artificial and spontaneous diarrhœa are



the same things—in both, there is an intestinal flux. But the observer sees things differently. In spontaneous diarrhoea all the economy is prepared for this new fluxionary movement, and when it is established, it draws within its sphere of action a multitude of secondary vital acts. In artificial diarrhoea the economy resists the cause provoking it. There is doubtless a flux from the intestinal canal established; but it is isolated, all other acts of the economy retaining their independence. Compare the condition of the man who becomes the subject of a diarrhoea, with his who takes a bottle of Seidlitz water, observe the exhaustion and *malaise* of the one, and the little inconvenience which a much greater number of stools causes to the other. A woman has not her menstrual discharge or a man his hæmorrhoidal flux at their usual period, will the taking away a far larger quantity of blood than that usually lost from the vulva of the one, or the anus of the other, have the same effect on the economy? Some persons are affected several times in a year with an erysipelatous swelling of the nose or ear; substitute for such spontaneous irritation that produced by a large blister, and see if the effect will be the same. In a spontaneous act there is such a condition of the economy, that every function is in some measure subordinate to the actions about to take place, which can hardly ever be the case when the effect is sought to be produced by a therapeutical agent, unless, indeed, the indication has been well prepared and skilfully seized.

“I have said enough to show that we must not judge of the influence which a purgative will exert by that which a spontaneous diarrhoea produces. But, if in lieu of the transitory action of a purgative given from time to time, we produce an effect from day to day, or almost continuously; or again, if a temporary action be very energetic, and frequently renewed, we may produce results less marked, it is true, than those proceeding from spontaneous diarrhoea, but yet considerable enough to be of great importance to the practitioner. It remains to inquire whether a plan so acted upon is applicable to ordinary cases? I reply, it is not. It is dangerous for young infants, whether they are at the breast, or have been weaned. Gastro-intestinal phlegmasiæ, at this age, are of a grave character, whether considered as preventive of the active nutrition so requisite at this period of life, the acute, and often fatal affections they gave rise to, or the chronic ailments they predispose to. Purgatives, to be of service in “*gourmes*,” must be active, and it is easy to give rise to greater disorders than those we are seeking to combat. Such precautions are not required for adults, adolescents, or even for children above their third year, in whom these gastro-intestinal phlegmasiæ are established with difficulty, usually exempt from danger, and easily curable. If, in an infant, a slight diarrhoea, which

had caused neither exhaustion nor wasting, and yet has much improved the condition of the "*gourmes*," becomes arrested, we must endeavor by the aid of purgatives, to reproduce it, and maintain it as nearly as possible in the same state it had previously existed in.

"Various vegetable ptisans have acquired a reputation as *depuratives*, and many of these, as bitter-sweet or wild pansy, and also chicory-juice, are very useful adjuvants when taken for a long time by the children who have passed their first infancy. But I must protest against the employment of *cod's-liver oil* and *hydriodate of potass* to this end, even when the "*gourmes*" can be traced to a scrofulous origin. I have almost always found these two therapeutical agents produce vesicular and papular eruptions; and, during the treatment of rickets, I have frequently been obliged to suspend the administration of cod's-liver oil, because the skin had become covered with eruptions, sufficient in many cases to excite considerable febrile action."—*Bulletin of Medical Science*.

2. *Observations and Experiments on the use of Calcined Magnesia as an Antidote to Arsenic.* By ROBERT PETER, M.D., Professor of Chemistry and Pharmacy in the Medical Department of Transylvania University.

Since the announcement, by MM. Bunsen and Berthold, in 1834, of the efficacy of the hydrated peroxide of iron as an antidote to the poisonous effects of arsenious acid, the attention of toxicologists has been so strongly fixed on the properties of this substance, that they have in a great measure lost sight of the means formerly relied on in this species of poisoning.

It is very true that many of them are worthless as *antidotes*, as has been proved to be the case with charcoal, vinegar, sugar, butter, limewater, bitter decoctions, &c.; and that one, the liver of sulphur, is itself a poison; but there seems to have existed no good reason why the virtues of magnesia, as an antidote to arsenic, should have remained so long unappreciated.

This is the more remarkable from the fact, that "Mr. Hume of London, and others, have apparently found advantage from the administration of large doses of magnesia,"\* in cases of poisoning with arsenic. Yet Orfila makes no mention of this substance in his *Toxicologie*, (4th edition,) although he elaborately disproves the alleged efficacy of charcoal; and Christison, placing it in the same category with "the fine impalpable powders, inert as physiological agents, and destitute of any true chemical action with oxide of arsenic;" remarks: "If this substance be of any use at all, which is doubtful, it can only act by covering the arsenical particles with its fine

\* London Med. and Phys. Jour., xlv., 466, 545. Mr. Edwards, *ibidem*, xlix, 117. Mr. Buchanan, London Med. Repos., xlx, 288. (Quoted from Christison on Poisons.)



insoluble powder, and so preventing them from coming in contact with the surface of the stomach; for in its state of magnesia it has no chemical action with oxide of arsenic.”—(*Christison on Poisons*. American edit. 1845. p. 283.)

Chemical antidotes are those substances which, by combining with the poisons, or decomposing them, either change their properties, and thus disarm them of their corrosive or irritant action, or form with them new compounds which are inert in consequence of their insolubility in the fluids of the stomach. Thus, magnesia will neutralize the acids by combining with them, and thus avert their corrosive action; or it will decompose certain metallic salts, and reduce them to an insoluble and comparatively harmless state; and it will also, as we think we can demonstrate, combine directly with arsenious acid to form an *arsenite of magnesia*, which is insoluble in the ordinary fluids of the stomach.

The reactions of magnesia with arsenious acid do not appear to have been much studied by chemists. It is true that the *arsenite of magnesia* is mentioned among the salts, and is stated to be *insoluble in water*. The neutral *arsenite* of magnesia, (the salt formed by the union of the arsenic acid with magnesia) is also said to be insoluble. Yet the most simple experiment would demonstrate the error of Dr. Christison in his statement that “magnesia has no chemical action with oxide of arsenic.”

The attention of the writer was drawn to this subject by the perusal of the following summary of facts, submitted to the French Academy of Science, by M. Bussy, as the results of his labors, and published in the *Comptes Rendus*. 18 Mai, 1846. p. 845. viz:

“1. That purified animal carbon, recently proposed, cannot be successfully employed as an antidote to arsenic.

“2. That pure magnesia, which has not been intensely heated, absorbs arsenious acid in solution, and forms with it a compound which is insoluble even in boiling water.

“3. That in the gelatinous state it absorbs it still more promptly.

“4. That animals to which arsenic had been administered, were always saved when we caused them to take sufficient doses of magnesia.

“5. That this antidote presents the following advantages over those which are at present employed, viz: that it can always be obtained at the apothecary’s shop, that it easily and completely neutralizes the poison, and may be administered in a large dose without inconvenience, its general therapeutic effects being in accordance with the indications in this kind of poisoning.

“6. That magnesia decomposes tartar emetic, the salts of copper, and corrosive sublimate;” and there is reason to believe

that we may employ it with success to counteract the effects of those poisonous substances, as well as those of the metallic salts generally.

“7. That the salts of the organic alkalies, morphine, strychnine, &c., being also decomposed by magnesia, the administration of that substance in cases of poisoning with the organic products which owe their activity to the presence of the vegetable alkalies, might retard, and cause to be more difficult, the absorption of the poison,—this supposition it is proposed to verify by ulterior experiments.”

Wishing to ascertain how far the results of M. Bussy, in relation to arsenic, could be verified, by the use of the ordinary calcined magnesia of the shops, the writer of the present article performed the following experiments.

In the first place, a solution was made by dissolving forty grains of pure lump white arsenic, reduced to powder, in five fluid ounces of distilled water, at a boiling temperature. The solution therefore contained one grain of arsenious acid to the fluid drachm.

*Experiment 1.*—One fluid drachm of the solution of arsenic was mixed with one drachm of calcined magnesia, and fifteen drachms of distilled water. The mixture was heated in a Florence flask up to about 150° Fah., when the lamp was removed, and it was allowed to stand about fifteen minutes. It was then filtered through paper and the clear solution tested for arsenic with *ammonio-nitrate of silver*. The delicate reagent only rendered the fluid slightly turbid, with a light colored, nearly white, precipitate. The addition of nitric acid, in which most of the light precipitate was insoluble, showed that only a *trace* of arsenite of silver was present, and that most of the precipitate was chloride of that metal, probably derived from the impurities of the magnesia. *Sulphuretted hydrogen* solution was then added to some of the filtered liquid previously acidulated with hydrochloric acid, and this test, which, according to Mohr, will indicate the presence of one part of arsenic in 200,000 parts of water, produced scarcely a perceptible change of color.

A current of sulphuretted hydrogen gas was then passed through the acidulated filtered liquid, for half an hour, which caused it to assume a scarcely perceptible yellow tinge, indicating the presence of a *mere trace* of the arsenious acid. Similar experiments with the above tests, made on a mixture of 1 fluid drachm of the original arsenic solution and fifteen drachms of water, without magnesia, gave well marked and copious precipitates in both cases.

The solution submitted to the action of the drachm of magnesia, contained one grain of arsenious acid in two ounces of water. The arsenic had evidently been almost entirely withdrawn from the solution by the magnesia; for the deli-



tests used,—one of which will indicate the presence of that poison in the minute proportion stated above, and the other, the ammonio-nitrate of silver, still more sensitive, is capable of showing an evident reaction with only one part of arsenic in 400,000 parts of water,—were both brought near to the extreme limits of their power by the dilute solution.

The magnesia remaining on the filter was then washed with cold water, after which it was subjected to the action of boiling water; to which it did not communicate a trace of arsenic discernible by the silver test.

*Experiment 2.*—A fluid drachm of the original arsenic solution was again mixed with fifteen drachms of distilled water and one drachm of calcined magnesia, and the mixture was allowed to remain, *without application of heat*, at the temperature of 77° Fah., for twenty minutes, when it was thrown upon a filter. The filtered fluid gave a *slight* precipitate with the ammonio-nitrate of silver, which only partially dissolved in nitric acid, but was wholly soluble in ammonia. Sulphuretted hydrogen produced only a tinge of yellow in the acidulated fluid, but caused no sensible precipitate.

Comparative experiments with a solution of the strength of that submitted to the action of the magnesia, showed clearly that the greater part of the arsenic had been removed from the liquid by that substance acting at the temperature of 77°. As it was desirable to know *how much* of the arsenious acid would be removed from the solution of that substance by a given quantity of magnesia, the following experiment was made.

*Experiment 3.*—One fluid ounce of the original arsenic solution, containing eight grains of that substance, was mixed with a fluid ounce of water and a drachm of the magnesia, and heated up to blood-heat. After allowing it to stand for ten minutes it was filtered, and half a fluid ounce of the filtered fluid was carefully evaporated to dryness in a weighed porcelain capsule. The fluid became turbid with a white precipitate on attaining the boiling point, and appeared of a pasty consistence when nearly evaporated. On re-weighing the capsule, it was found to have gained one grain and nine-tenths of a grain. The capsule containing the residuum was then strongly heated, to drive off the arsenious acid, and on weighing it again, the loss in weight was found to be one grain and one tenth; which was the amount of the arsenic contained in the half an ounce of the filtered solution. As the arsenic solution which was submitted to the action of the magnesia, in this experiment, contained two grains of arsenic to the half ounce, or eight grains of that substance in the whole mixture, it is evident that the drachm of magnesia had withdrawn four grains and four-tenths of the arsenious acid from the solution; a proportion nearly as great as that which would have been removed by hydrate of the peroxide of iron under the same

circumstances, and which, from the manner of the performance of the experiment, does not give us the measure of the full extent of the action of magnesia on arsenic in solution.

It is evident from these facts, that magnesia would be a most useful agent in the treatment of poisoning with arsenic. Mixed with water, and administered continually, and in sufficient quantity, until all the poison is removed from the stomach, it would combine with the arsenious acid as soon as it became dissolved in the fluid of the stomach, and by withdrawing it immediately from solution, prevent its absorption into the living tissues. Even when the poison is taken in solution, we could doubtless succeed, by the speedy administration of a large quantity of this antidote, in gaining time to remove it from the stomach by the ordinary emetic means.

It is believed to be always desirable to evacuate the stomach freely after the use of *any* of the antidotes; more especially in poisoning with metallic substances; for, although the poison may for the time being, be converted into a compound insoluble in water, yet it might not be safe to allow that substance to remain long in contact with the secreted acids of the stomach.

Many persons may be disposed to think that, having in the hydrated peroxide of iron, a good antidote to arsenious acid, it would be folly to throw it aside for another which has not yet been sufficiently submitted to the severe test of experiment on the living subject. But the writer would suggest that the compound of iron is not always to be procured in time when it is wanted, and moreover is often inert from the improper manner of its preparation, while magnesia is almost always at hand, and can, generally, be procured in quantity; and it presents a range of antidotal power over various poisons not equalled by any other known substance. It is, therefore, to be strongly recommended as a substitute for the peroxide of iron, when the latter cannot be easily obtained.—*West. Lan.*

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3. *Association of Medical Superintendents of American Institutions for the Insane.*—The Association of Medical Superintendents of American Institutions for the Insane, held its second meeting at Coleman's Hotel, in the City of Washington, on the 11th of May, 1846, the President, Samuel B. Woodward, M. D., in the chair, and Thomas S. Kirkbride, M. D., Secretary.

*Present.*

Dr. Samuel B. Woodward, of the Massachusetts State Lunatic Hospital at Worcester.

Dr. James Bates, of the Maine Insane Hospital, Augusta.

Dr. Andrew McFarland, of the New Hampshire State Hospital at Concord.



Dr. William H. Rockwell, of the Vermont State Hospital at Brattleborough.

Dr. Luther N. Bell, of the McLean Asylum for the Insane, at Somerville, Mass.

Dr. C. H. Stedman, of the Boston Lunatic Asylum.

Dr. N. Cutler, of the Pepperell Asylum, Mass.

Dr. George Chandler, of the Massachusetts State Lunatic Hospital, at Worcester.

Dr. John S. Butler, of the Connecticut Retreat at Hartford.

Dr. Amariah Brigham, of the New York State Lunatic Asylum at Utica.

Dr. Pliny Earle, of the Bloomingdale Asylum, New York.

Dr. G. H. White of the Hudson Lunatic Asylum, New York.

Dr. James Macdonald, of the Private Institution, Flushing, New York.

Dr. Thomas S. Kirkbride, of the Pennsylvania Hospital for the Insane, Philadelphia.

Drs. Stewart and Fenerden of the Maryland Hospital.

Dr. I. P. Stokes, of the Mount Hope Asylum at Baltimore.

Dr. Wm. M. Awl, of the Ohio State Hospital, at Columbus.

Dr. John M. Galt, of the Eastern Asylum of Virginia, at Williamsburgh.

Dr. I. W. Parker, of the South Carolina Hospital, at Columbia.

Dr. Walter Tellfer, of the Lunatic Hospital, at Toronto, Canada.

Dr. Wm. M. Awl, of the Ohio State Hospital, was elected Vice President of the Association, in the place of Dr. Samuel White, of Hudson, deceased.

Reports were received and read from various committees appointed at the last meeting of the Association:—

On the subject of the Moral Treatment of Insanity, by Dr. Amariah Brigham; on the Medical Treatment of Insanity, by Dr. Samuel B. Woodward; on Restraint and Restraining Apparatus, by Dr. Bell; on the Construction of Hospitals for the Insane, by Dr. Awl; on the Jurisprudence of Insanity, by Dr. Ray; on the Organization of Hospitals for the Insane, by Dr. Kirkbride; on the Statistics of Insanity, by Dr. Earle; on Asylums for Idiots and the Demented, by Dr. Brigham; on Chapels and Chaplains in Insane Hospitals, by Dr. Butler; on Post Mortem Examinations, by Dr. Kirkbride; on Asylums for Colored Persons, by Dr. Galt; on the proper provision for Insane Prisoners, by Dr. Brigham. An Essay on the Construction of Hospitals for the Insane was also read by Dr. Bell, and the subjects embraced in the Reports were minutely discussed by the Members of the Association.

The following preamble and resolutions were adopted:—  
*Whereas*, Since the last meeting of this Association, Dr. Sam-

uel White of New York, the venerable and highly respected late Vice-President of this Association, has died:—

Therefore,

*Resolved*, That by the death of Dr. White, the Association, and the Medical Profession, have lost an esteemed and valued member, and the cause of humanity a useful and active friend. Particularly have the friends of the insane reason to mourn his loss, as he had long been successfully engaged in relieving the sufferings of this afflicted class of his fellow beings, and, by his labors and his writings, essentially aided in improving their condition.

*Resolved*, That we deeply sympathise with the surviving members of his family, and recall, at the present time, the excellencies of his character, his useful precepts, and the worthy example he presented of a Gentleman, Physician, and Christian, devoted to deeds of goodness, and whose long and active life was spent in promoting the welfare of his fellow men.

*Resolved*, That Dr. Brigham be requested to prepare an obituary notice of the late Dr. White, to be entered upon the minutes of the Association, and to be published.

*Resolved*, That the Secretary of this Association present a copy of these resolutions to the nearest relative of the deceased.

The following resolutions were also adopted by the Association during its different sessions:

*Resolved*, That the resolution of the last meeting, relative to Members of the Association, be so amended as to read as follows:—That the Medical Superintendents of the various incorporated, or other legally constituted Institutions for the Insane, now existing on this continent, or which may be commenced prior to next meeting, and all those who have heretofore been Medical Superintendents and Members of this Association, or who may be hereafter appointed to these stations, be, and they are hereby constituted Members of the Association.

*Resolved*, That in future, each regularly constituted Institution for the Insane on this continent, may have one representative in this Association;—that as heretofore, this shall be the Medical Superintendent, where such officer exists, but in those institutions in which there is a different organization, it may be either of the regular medical officers who may find it most convenient to attend.

*Resolved*, That the subjects, upon which committees were appointed at the first meeting of the Association, be continued, each in the hands of the Chairman of the respective Committees, to be reported upon at the next meeting.

*Resolved*, That in addition, each one of the following subjects be confided to a single Member of the Association, who



is hereby requested to report at the next meeting of the Association:—

1. Treatment of Incurables. Dr. Macdonald.

2. Is there any relation between Phrenology and Insanity? Dr. Fenerden.

3. The Classification of Insanity. Dr. Earle.

4. The admission of visitors into the halls of the patients. Dr. Ray.

5. Visits to, and correspondence with patients by their friends. Dr. Stokes.

6. The comparative value of the different kinds of manual labor for patients, and the best means of employment in winter. Dr. Rockwell.

7. The proper number of patients for one institution. Dr. Brigham.

8. The utility of night attendants, and the propriety of not locking patients' doors during the night. Dr. Chandler.

9. The advantages and disadvantages of cottages, for wealthy patients, adjacent to Hospitals for the Insane. Dr. Kirkbride.

10. The relative value of the different kinds of fuel for heating hospitals. Dr. Bates.

11. Insanity, and the condition of the insane in the British Provinces. Dr. Tellfer.

12. The nature and treatment of Insanity produced by the use of intoxicating liquors. Dr. Stedman.

13. The relations of Menstruation to Insanity. Dr. Fenerden.

14. Under what circumstances can the Insane of the poorer classes be properly treated with the greatest degree of economy. Dr. McFarland.

15. The effects upon the Insane of the use of Tobacco. Dr. Cutler.

16. Reading, recreation and amusement for the Insane. Dr. Galt.

17. On water closets in the wards and yards of Hospitals for the Insane. Dr. Bell.

18. On the construction and arrangement of Institutions for the Insane in Southern climates. Dr. Parker.

*Resolved*, That the members of this Association be urgently requested, with the concurrence of the friends of patients, to make post mortem examinations, in all cases of insanity which may prove fatal while under their care, and to report the result of their observations at the next meeting of the Association.

*Resolved*, That each Member of this Association be requested to ascertain the facts and circumstance (such as sex, age, civil state, vocation, mode and other matters susceptible of being tabularized,) of each case of suicide, occurring in his

respective State, between the first day of January and the last day of December, 1847, and forward an abstract of the same as soon after the latter date as convenient, to the Chairman of the Committee on Suicide: it being understood that in States having more than one Member, they be requested to divide their States by certain territorial limits.

*Resolved*, That it be recommended to the officers of the different Institutions for the Insane in this country, to have engraved, previous to the next meeting of the Association, a view and ground plan of their respective establishments, and of a size that will permit their being bound with their Annual Reports.

*Resolved*, That a committee of three be appointed to publish, in a collected form, the Transactions of the Association, or, under certain circumstances, such parts of the same as they may deem expedient.

*Resolved*, That the essays presented to this Association are understood to be the opinions of the Chairmen of the different Committees by whom they have been reported, and do not necessarily express the sentiments of other members relative to their details.

*Resolved*, That in case the Committee do not publish any of the essays, their writers then have the privilege of publishing them in a separate form, should they deem it expedient to do so.

*Resolved*, That the Secretary be directed to publish an abstract of the Proceedings of the Association, in the American Journal of Insanity, the American Journal of the Medical Sciences, and the New York Journal of Medicine.

The Association continued its session till the evening of the 14th of May, and adjourned to meet in the city of New York on the 2d Monday of May, 1848, at 10 A. M.

By order of the Association,

THOMAS S. KIRKBRIDE, *Secretary*.

This Association, first instituted during the last year, evinces a determination on the part of its members, that no efforts on their part shall be wanting to enable the Department, peculiarly their own, to keep pace with the advancement of other branches of Medical Science. From the well earned reputation of those composing the Association, and the responsible stations they hold, together with the vast field for observation afforded by the Institutions under their control, we look upon it as destined to do much to ameliorate the condition and improve the treatment of the unfortunate class of sufferers for whose benefit it was instituted. We are indebted



to the *New York Journal of Medicine*, for the above abstract of the proceedings of the second meeting.

4. *Treatment of Lead Colic.*—During the three years that I was with M. Gendrin, I saw a vast number of cases of lead colic; we had, indeed, nearly always two or three men thus affected in our wards, sent from the carbonate of lead manufactory at Clichy. All of these cases were treated with sulphuric acid, and I do not recollect having seen one in which the disease proved refractory to the treatment adopted,—a case or two of confirmed chronic paralysis excepted. The duration of the treatment, as far as I can collect from my notes, was about three days in slight cases, and six or seven in severe ones. The sulphuric acid was given, largely diluted with water, (forty-four drops to a pint of water,) two or three pints being administered in the twenty-four hours. The amount of pure strong acid taken in that time was, therefore, from one drachm and a half to two drachms. Sometimes the sulphuric lemonade, as it was familiarly called, was vomited as soon as ingested. Still, when this was the case, the patient was made to persevere in its use, and the stomach soon became accustomed to the acid, and retained it. When it was retained, the abdominal pains generally began to diminish after the first, second, or third day, the constipation soon giving way naturally, after they had become less intense. In all these instances, not a grain of any kind of medicine was given besides the sulphuric acid, nor even was an enema used, the sulphuric acid being the only medicinal agent resorted to, if we except baths.

At the commencement of the treatment, a sulphur bath was given to the patient, the result of which was, that the sulphur combining with the particles of lead that were on the skin, formed a black sulphuret. The amount of lead which is thus discovered to encrust, as it were, the skin of those who have worked at preparations of lead, is nearly incredible. I have seen men go into the sulphur baths quite white, and come out nearly as black as negroes. The lead lying on the skin having been thus made visible to the naked eye, the patients were supplied with a hard brush and half a pound of soft soap, and made to scrub themselves daily in a warm bath, until all the black sulphuret had been brushed off. The sulphur bath was then repeated, the sulphuret of lead brought out, brushed off and the process renewed until it no longer rendered visible any trace of lead.

This precaution is indispensable with all who labor under saturnine disease, if we wish to ensure patients against relapse. Whilst at the hospitals of La Pitié and Saint Louis, I have repeatedly had patients under my care with lead colic, who had been discharged as cured from other hospitals a few

weeks previously. The sulphur bath, which exhibited a thick coating of lead on the skin, explained at once the cause of the relapse. Indeed, the presence of this coating of lead on the surface of the body is, no doubt, the principle cause of the relapses which are mentioned by authors as occurring so often in these diseases. The lead which thus lies on the surface of the body is gradually absorbed, and, at last, poisoning having again taken place, all the symptoms to which it gives rise are manifested. No patient who has suffered, and been treated for lead colic, can be considered safe unless he has gone through the ordeal of a sulphur bath, with a perfectly white skin. One of the great advantages of repeating the sulphur bath during the treatment is, that the patients, whom it is easy to convince of the importance of getting rid of the metallic poison, when they see it plainly on their bodies, rub with real good will.

The mode in which the acid acts in neutralizing the poisonous effects of the lead is easy to explain. It combines, no doubt, with the lead in the tissues, and forms with it an insoluble sulphate or sulphuret, which is consequently inert, and is gradually eliminated from the economy. This is the interpretation adopted by M. Gendrin, and it appears rational enough.—Mr. Bennet in *London Lancet*, in *New York Journal of Medicine*.

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5. *On Floodings*.—"1. Floodings rarely occur after natural delivery, to any extent, if properly guarded against. 2. They happen most frequently after instrumental and manual deliveries, and after deliveries rendered precipitate by the violence of the expulsive action, *in all of which cases they proceed from lacerations of the soft parts*, sustained during the passage of the child. 3. Those which occur after labors rendered tedious by the abnormal size of the child, may proceed either from laceration or sloughing of the parts. Some rare cases are on record, in which the blood would seem to have escaped by gravity from the uterine vessels, owing to the mother having been raised into an erect posture while in a debilitated state.\* 4. Floodings which take place a few hours after delivery, are owing to wounded vessels which have acquired increased activity after the depression occasioned by the shock of delivery has gone off. 5. Those which take place some days after delivery, are connected with sloughing of the parts, which may either have been injured in the act of delivery, or become tainted by the presence of a putrid portion of the placenta." The phenomena of floodings being thus shown to be identical with those of hemorrhages from wounded arteries, the same plan of treatment is clearly identical in both cases. Floodings

\* How can this be, unless there are uterine vessels communicating with the placenta?



then, are to be treated by exposure to cool air, by cold applications to the parts, or, if need be, by cooling injections into the uterus and vagina, by elevated position of the pelvis, and moderate doses of opium. If arterial blood flow rapidly and continuously, an examination should be made, and if a wounded artery is detected, it should be secured by the usual surgical means.\*—*London Medical Gazette*, in *New York Journal of Medicine*.

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6. *New Mode of Administering the Sulphate of Quinine*.—A memoir on the use of sulphate of quinine in intermittent fever by friction on the mucous surface of the mouth and fauces, has been addressed to the Academie des Sciences, Paris, by M. Ducros. The following are the conclusions at which he has arrived.—

1. The sulphate of quinine administered in sulphuric ether, by frictions on the tongue, the velum pendulum, the inside of the cheeks, and back of the pharynx, causes an abundant salivation with a strongly marked bitter taste, in the dose of five centigrammes.† The reaction on the spinal marrow excited by this dose is stronger than would have been produced by two grammes‡ taken into the stomach or intestinal canal.

2. The action of sulphate of quinine, administered in this manner, is almost instantaneous, whether employed in malignant intermittents, or in simple agues, or in temporo-facial neuralgia.

3. This immediate therapeutic action is especially important in malignant intermittent, since given in other methods the sulphate of quinine requires to be taken several hours before the paroxysm, while by this method it is sufficient if it be administered half an hour before the access.

4. A still greater advantage of thus employing the quinine in small doses, is the avoiding of all risk of poisoning by the remedy.

5. The rapidity of this action of the quinine in temporo-facial neuralgia is also a most important advantage.—*New York Journal of Medicine*.

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7. *Useful Suggestions*.—Good advice cannot be too often repeated, nor in too many forms. We have read with pleasure, therefore, the views of Dr. Hughes Bennett, as expressed in the first of a series of articles under the above title in the *Edinburgh Monthly Journal*. He sums up the arguments which he advocates as a series of suggestions for the advancement of our science, and we extract them nearly in the author's words.—*Lancet*.

\* *Medical Gazette*, vol. xxxvii., p. 150.

† About three quarters of a grain.

‡ Half a drachm.

"1. To encourage the idea among the profession which considers him to be the truly practical man who exercises a sound reason and judgment in the practice of medicine and surgery, based rather upon a knowledge of anatomy and physiology—morbidity anatomy and pathology—than upon mere experience.

"2. To encourage the habitual use of specula, stethoscopes, pleximeters, sounds, microscopes, and every instrument, capable of bringing the products of disease under the immediate cognisance of the senses, and thus rendering diagnosis exact.

"3. To encourage the study of pathological anatomy on rational grounds—that is, by examining *all* the organs in every case—investigating into the minute structure of every morbid product—and by obtaining a chemical analysis of these, and of the blood, whenever this is practicable.

"4. To place in all hospitals connected with medical schools an officer well acquainted with morbid anatomy, and the modern means of cultivating it, whose duty it shall be to conduct the post-mortem examinations, keep a minute record of each, teach morbid anatomy to the students, and publish a yearly report.

"5. That in our public institutions the history of disease should not be recorded by young men inexperienced in observation, but should in all cases be dictated by the physician and surgeon.

"6. To extend and give greater importance to clinical instruction by introducing the system of bed-side tuition, so advantageously practised in continental universities, and by taking care that those who teach are enabled to communicate to their pupils the manual dexterity and knowledge in the use of all those instruments essential to an exact diagnosis.

"7, and lastly. To impress upon the legislature the necessity of introducing some system which will ensure the appointment to our public hospitals of well-educated physicians and surgeons, intimately acquainted with pathology and the principles of rational medicine. Otherwise, it cannot be reasonably anticipated that the extensive opportunities for observation which these institutions afford will ever be made available in advancing the healing art for the good of the community at large."—*Bulletin of Medical Science.*

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8. *The Endermic Application of the Sulphate of Quinine.* By H. V. WOOTEN, M. D., of Lowndesboro', Alabama.—In July, 1842, I was called to a lady affected with intermittent fever, of a rather grave type. She had suffered several paroxysms, and the fever now continued through the apyrexia. She was entering upon the fourth month of pregnancy, and suffering extreme irritation of stomach. A physician had been prescribing for her several days, during which time the sul-



phate of quinine had been given in combination with morphine and various other anodynes, and aromatics, but all had been instantly rejected. The bare effort to swallow, produced retching, and it appeared that nothing could remain on the stomach, not even a small quantity of the ordinary secretions. Another paroxysm was expected in about four hours. I advised the administration of sulphate of quinine  $\text{xx. grs.}$ , sulph. morph.  $\frac{1}{2}$  gr., in  $\text{ʒi.}$  gum arabic mucilage, to be thrown into the rectum, and repeated in three hours. I had found this mode of administration to answer an admirable purpose, in a few cases before, but the rectum seemed as irritable as the stomach, and the enema was promptly rejected. It was repeated and rejected three times, which I learned on my visit next day, and the paroxysm occurred at the regular hour. At every chill she was attacked with uterine pains so severe as to threaten abortion; and aside from that danger, her general condition presented rather an alarming aspect. The remedial powers of the quinine seemed to be absolutely necessary in the case, and the only remaining way of introducing it was by endermic application. It was about twenty-six hours to the time for the next paroxysm. There was already a blistered surface over the epigastrium about seven inches square. We cut a piece of adhesive plaster large enough to cover it, laid the plaster upon the bottom of a warm waiter, and when it was sufficiently soft, poured the quinine upon it, and rubbed it on with a spatula, until it formed a complete covering of the plaster, and applied it over the blister. We prepared another twenty inches long, and three wide, which we applied to the spine, from the crevical vertebræ downwards, after sponging the skin with warm water. These plasters were carefully applied, (enough of the margin being left uncovered to adhere to the surface,) and nothing taken into the stomach but a few drops of water occasionally, when thirst rendered it absolutely necessary, until after the hour for the paroxysm, with the happiest effect. She had no chill, and as the chill was the cause of the uterine pains, and greatly aggravated the other symptoms, with it, she got clear of most of her distress, and improved very finely.

I have applied the sulphate of quinine endermically in four other cases, where, from various circumstances, I could not introduce it in a more direct way, and in every case with effect. I could detail them, but the practical result being so similar to the foregoing, it is unnecessary. I may mention, however, that in two cases the remedy was applied over a blister on the epigastrium, and in these it was successful in arresting the first paroxysm. In the two other cases, there was no blister, either on the epigastrium or spine; in one, it failed to arrest the first paroxysm, and succeeded on the sec-

ond; in the other, it arrested the first, as in those cases where it was applied over a blister.—*Southern Med. and Surg. Jour.*

9. *Abstract of a Lecture on Antidotes to Poison.* By ALFRED BARING GARROD, M. D. (Pharm. Jour., from Dub. Medical Press.) The lecturer having defined the term *antidote*, divided antidotes into two classes;—first, those which alter the nature of the poison, and thus prevent its injurious action; and secondly, those which counteract the effect when once produced. The latter class he passed over as being more within the province of the medical practitioner.

The first class, which may be called *direct* antidotes, should be understood by chemists, and their efficacy depends on their immediate administration, which, however, should not supersede the use of the stomach-pump or emetics for the removal of the poison from the stomach.

Dr. Garrod classified poisons into inorganic and organic. Among the former, the mineral acids and the caustic alkalies should be neutralized by substances harmless in themselves and capable of producing inert or innocuous compounds, a circumstance which should always be considered in the selection of an antidote. For instance, solution of caustic potash should not be given as antidote for oil of vitriol, but chalk, magnesia, or bicarbonate of potash or soda. For oxalic acid, lime water or chalk should be given, not potash or soda. For the caustic alkalies, such acids as are harmless should be selected; for instance, citric or tartaric acid, or vinegar, with mucilaginous drinks. For sulphuret of potassium, the best antidote is chloride of soda.

As an antidote for iodine, starch is efficacious when given in sufficient quantity, as it produces an insoluble and inert compound.

Arsenic being a poison more frequently used than any other many antidotes have been tried, among which are sulphuretted hydrogen, sulphur, lime water, &c., but this class of substances are less efficacious than the hydrated peroxide of iron, which, however, must be given in such quantities that there shall not be less than eight or ten grains for every grain of arsenic. Unless given in excess it is not likely to succeed, and emetics or the stomach-pump should also be employed.

Among the mercurial poisons, corrosive sublimate is the most dangerous, and the best antidotes are albumen, gluten, and the proto-sulphuret of iron. Eggs and flour being generally at hand should be given in considerable quantities. The proto-sulphuret of iron is prepared by adding hydrosulphuret of ammonia to a solution of protosulphate of iron. When this is within reach it is useful, as it forms an inert compound of mercury when added to corrosive sublimate.

For the salts of antimony—decoction of oak, elm, or other



bark, containing tannin, has been recommended, as this forms an insoluble tannate of antimony.

The salts of lead and baryta may be counteracted by sulphate of soda or magnesia. Albumen and caseine form insoluble compounds with salts of lead; milk may therefore be given. No sure antidote is known for the salts of copper. Sugar has been recommended as an agent capable of reducing copper salts, but it requires for this purpose a higher temperature than that of the stomach. Albumen *in excess* has been proposed; but albuminate of copper is soluble if excess of the sulphate be present. Common salt is the antidote for the nitrate and other salts of silver, as it forms an insoluble chloride.

The next class—namely, organic poisons, are much more numerous than those above mentioned; comprising prussic acid, the alkaloids, (strychnia, morphia, &c.,) as well as all other vegetable and animal poisons. On this part of the subject the lecturer dwelt more at length, and detailed the result of a course of experiments which has led him to recommend animal charcoal as an antidote for vegetable poisons in general, as well as for some of the mineral poisons. It has long been known that charcoal (either animal or vegetable) exerts a peculiar action on colouring matters and absorbs gasses, on which account it is used in filters for purifying water. It has also been observed to throw down certain substances from their solutions, for instance, lime, iodine, &c., as stated by Professor Graham in his Elements of Chemistry. Mr. Warrington lately read a paper, at a meeting of the Chemical Society, on the removal of the bitter principle from infusions by animal charcoal. Makers of morphia and other alkaloids are aware that the product is diminished if much charcoal be used. Bertrand tried wood charcoal as an antidote for arsenious acid, corrosive sublimate, and the salts of copper; but in quantities so small as to be inert.

The lecturer had recently introduced the use of animal charcoal as an antidote for some of the inorganic poisons, but more especially for the organic. Before commencing his experiments it had occurred to him that the gastric juice might possibly interfere with the absorption of the poison by charcoal; but this he found not to be the case. His first experiments were with strychnia, which he administered to two guinea-pigs, in one case with animal charcoal, in the other without; and also to several rabbits. In all cases those animals which took the poison with a proper quantity of the antidote, were not at all affected, while the others died. But it appeared that to saturate half a grain of strychnia, two drachms of the charcoal were required, and unless given at least in this quantity, it was not efficacious. The same results were observed in the case of dogs and other animals; one-sixteenth

of a grain of strychnia was found sufficient to kill a frog, but with a proper quantity of charcoal a quarter of a grain was given without any poisonous effect. From half a grain to one grain was found to be enough to kill a dog in about ten or fifteen minutes; but when animal charcoal was given in the proportion of half an ounce to each grain of strychnia no effect was produced.

*Nux vomica*, which in doses of twenty or thirty grains will kill a dog of average size, was rendered innocuous by the administration of half an ounce of animal charcoal.

In the experiments with the pure alkaloids the antidote was given with the poison; in the case of the more mild vegetable poisons, the antidote was administered ten or fifteen minutes afterwards, and mostly with a favorable result.

Similar experiments were tried with opium and its preparations. In giving the tincture of opium it was necessary to take into consideration the effect of the alcohol, two drachms of which are sufficient to kill a dog, and this result is not prevented by charcoal.

The emetic properties of *ippecacuanha* were found to be counteracted by animal charcoal; and the antidote was found to be equally successful with *elaterium*, tincture of *aconite*, *aconitine*, *belladonna*, *stramonium*, *hemlock*, *cantharides*, and other vegetable poisons, as well as *hydrocyanic acid*.

The success of these experiments had induced the lecturer to try the efficacy of animal charcoal as an antidote for the mineral poisons, and with several of them he had found that when given in a large quantity it was more successful than the antidotes usually recommended. In many cases it was found to counteract or lessen the effects of *arsenic*, *corrosive sublimate*, the salts of *lead* and *copper*; but not so completely as to supercede the necessity of administering such substances as are capable of forming insoluble and inert compounds with the poison.

From the above experiments, the lecturer had come to the following conclusions:—First, that animal charcoal has the power of combining with the poisonous principles of animal and vegetable substances, and forming innocuous compounds: second, that it will absorb and render inert some mineral substances, but, except in the case of *arsenic*, is not so generally applicable to those poisons as their special antidotes, the quantity required being very great; third, that a certain amount of animal charcoal is required to neutralize the poison—for *morphia*, *strychnia*, &c., half an ounce to the grain for the substances from which these alkaloids are obtained, half an ounce to the scruple;—fourth, that the charcoal itself exerts no injurious action on the body.

The kind of charcoal employed in the experiments was the purified animal charcoal, prepared according to the directions



of the London Pharmacopœia—namely ivory-black digested in dilute hydrochloric acid, washed and dried. It is improved by heating it to redness in a covered crucible. Ivory-black, if not purified, must be used in much larger quantity, and vegetable charcoal is efficacious only to a comparatively small extent.

In administering the charcoal it should be triturated with lukewarm water, so as to form a fluid of slight consistency, in this way the antidote may be given in ounce doses, or more, according to circumstances. In the selection of emetics, those only should be used which are not rendered inert by charcoal. Ipecacuanha would not operate in contact with it; but sulphate of zinc should be substituted.

In conclusion, the lecturer suggested the propriety of trying animal charcoal as an antidote for other subtle poisons, such as rabies, syphilis, the venom of serpents, &c., applied as a poultice to the part affected, also as a remedy for diabetes, and some other disorders arising from noxious or unhealthy secretions.—*Southern Medical Journal*.

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10. *On the use of Galvanism in Lumbago, Sprains, and some other painful affections of the Muscles and Joints.* By M. RACIBORSKI. (*Gazette Medico-Chirurgicale*—from *Med. Chir. Review*.—M. Raciborski observes that the utility of Galvanism in paralysis of particular nerves is well known, and that Magendie has proved by many recent cases its service in neuralgia generally, but especially in that of the branches of the fifth pair. Having witnessed many successful applications of this kind, mostly in the wards of M. Bouillaud, the author was led to believe the employment of galvanism might be advantageously extended to other affections characterized by violent pain and the absence of signs of inflammation, as muscular rheumatism and *lumbago*. His experiments have been highly successful, the suffering of this last painful affection being frequently forthwith relieved, after the patient had long tried other remedies in vain. The same may be observed of *rheumatism* affecting the muscles of the extremities. It is not easy perhaps to state the *modus operandi* of the remedy; but it would seem to be by directly subduing the *pain*, which prevents the contraction of the muscles, that galvanism produces the instantaneous relief seen in some cases. “Certain it is that, in many cases, we have applied galvanism with some success, even to painful swellings of the knees, rendering walking, if not impossible, at least very painful. Certainly galvanism did not cause the swelling to disappear, but the pain became dissipated, or so diminished as to allow the patient to walk about. We do not doubt that the forced contraction which the galvanic shock produces in the fibres of the muscles, rendered motion-

less by the rheumatism, must contribute considerably to the good effects derivable from this means."

Four or five cases are given which were relieved almost immediately by galvanism, or rather, perhaps, we should call it galvanic acupuncture, inasmuch as needles were inserted in the parts where pain prevailed, and then brought in contact with the galvanic battery. A very few shocks, which usually themselves caused considerable temporary pain, sufficed to give relief, and enable the patient to exert muscular action without suffering. One or two of the cases seem to us, however, to have all the characteristics of hysteria—but this matters little, inasmuch as an effectual means of relieving the pain of that troublesome affection is a *desideratum*.

"Since our notes were taken, we have had other opportunities of applying galvanism in analogous cases, and always with the same success; but at present we merely desire to draw the attention of practitioners to this new mode of treatment, we need not extend the paper by citing the particulars. Nevertheless, we cannot terminate it without signaling the admirable effects which galvanism produces in the treatment of *Sprains*. Every one knows that a sprain, although apparently a slight affection, often exacts much time for its cure. When it implicates the ankle or knee, it is not uncommon to see patients deprived of the use of their limbs during two or three months. It is the violent pain felt upon the slightest movement of the part (we are speaking only of simple, uncomplicated sprain,) which retards the cure. The other symptoms are of little consequence, and are usually dissipated promptly. Now, just as we have seen in lumbago, so in sprain, galvanism relieves this pain instantly, and allows the patient to walk without lameness."

M. Raciborski suggests that the galvanism may act by restoring the contraction and tension of the fibres of the articular capsule, (and perhaps those of the tendons,) which had been inordinately distended and elongated by the accident.—*Southern Medical Journal*.

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11. *Mode of Diagnosing Buffy Blood*.—Dr. Wharton Jones has pointed out a very ingenious method of determining whether the blood is buffy or not, from an examination of a very minute portion of this fluid. It consists of quickly enclosing a drop between two pieces of glass, and observing, with the naked eye, the quickness with which it assumes a mottled appearance, and the smallness or largeness of the interspaces. In buffy blood the mottling is almost instantaneous, and the interspaces large; while in healthy blood it is delayed for half a minute or more, and the reticulation is minute.—*Dr. Cowan's Address*, in *Southern Medical Journal*.



12. *Water of Copaiba for Injections.*—Dr. Cattell recommends the following formula for the preparation of this article. R. Ol. Copaibæ, two ounces; magnesiæ carb., six drachms. Rub together and add four gallons, or less, of water. Filter. Cubebs may be prepared in the same way. This preparation is employed by injection in those cases, where the article is indicated, such as gonorrhœa, lencorrhœa, &c. By using injections, the nauseating effect of the remedy is avoided.—*West. Lancet*, in *Southern Med. and Surg. Journal*.

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13. *Treatment of Gonorrhœa.*—Mr. McDonald, (*Lancet*), recommends the following treatment in this affection. Smear a bougie with ointment of the nitrate of silver, (R. Argent Nitratiss ʒj; adipis ʒj;) introduce it into the urethra for about three inches, and allow it to remain two or three minutes. Two or three applications have been found to cure the disease; and if used in the acute stage, one application is generally sufficient.—*Ibid* in *Ibid*.

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14. *New Sign of Pregnancy.*—Dr. Pallender states that during a practice of 18 years, he has observed a peculiar smell of the vaginal mucus to be a constant and unerring sign of pregnancy. The smell is musty, something like that of spermatic fluid or liquor amnii; and, after a vaginal examination, it cannot be mistaken for any other odour. In a great many cases of pregnancy, during the first, second, and third months, when the condition of the patient was doubtful, owing to the earliness of the period, the author never, in a single instance, failed to discover the true state of the party by means of this sign. According to his latest observations, this odour is perceptible as early as the eighth day of gestation.—*American Journal*, in *Southern Med. and Surg. Journal*.

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15. *On the Uses of the Lobelia Inflata.* By Abraham Livezey, A.M., M.D., of Lumberville, Bucks county, Pa.—Observing for several years past the use and abuse made of the lobelia by a numerous horde of quacks that abound in some parts of the country, and percieving that those dangerous consequences, which have hitherto been attributed to this plant by many of the medical profession, did not result—and that, too, when administered by a set of ignorant pretenders, in enormous doses, and almost indiscriminately in all cases—I studiously applied myself to experimental observation, to ascertain with a greater-degree of certainty, the therapeutic value of this plant. And during the past year I have had many excellent opportunities of testing its beneficial influence in many diseases of febrile and spasmodic character.

In pertussis, combining the tinct. lobel., of which Professor Eberle speaks so highly, with the acid. hydrocyan., extolled

by Thompson and Roe, with equal propriety might I vaunt the receipt as a specific, as they do theirs—although such a thing as a *specific* probably does not exist, except it be sulphur for psora. In asthma, especially of a spasmodic kind, the most marked benefits result from the use of this plant singly, or combined as above—the existence of the nervous fibre of the bronchial surface, or the spasms of the mucous membrane of the bronchia, are speedily allayed, and, by a short course, a cure, or a *suspension* of some length at least, is the sequence of its administration.

For an adult—℞. Tinct. lobel. inflat., ʒj.; acid. hydrocyan., gtt. i—xj. Ter quatuorve die. But if the paroxysm be severe, the tincture may be given in much larger doses, and repeated at short intervals, till entire relief is obtained. By this combination I have enabled several *inveterate* cases of asthma (which had been repeatedly prescribed for by various physicians, quacks and old women,) to pass for several months past, with a complete suspension of all their sufferings.

In diphtheritic laryngo-tracheitis, where the excitation of emesis cannot be readily accomplished, which frequently arises from the nature of the disease as well as the difficulty and unpleasantness in the administration of medicine to infants, this difficulty may be obviated by enemata containing a portion of the tinct. lobel., or pulverized plant, which at once relaxes the system, removes the tension of the chest, changes, the seat of excitement to a distant part, and emesis readily ensues; the bowels in the meanwhile are emptied of their contents, and recovery from every distressing symptom immediately follows.

In all cases of coughs, especially when inflammatory symptoms manifest themselves, as in catarrhal affections in children as well as in adults, I consider the tincture of this plant, (or infusion, when the stimulus imparted by the alcohol might be objectionable) far preferable to ipecacuanha or the tartrate of antimony and potassa, being more decisive in its effects than the former, and a better and safer nauseant than the latter, without that fear of irritating the gastro-enteric mucous membrane, the pathological condition of which has been too much overlooked by earlier writers, but which is now claiming deserved attention.

This brings me to the consideration of the lobelia inflata in febrile disorders, incident to every section of country, more or less, in summer and autumn. When it is desirable (as in fact it is always) to lessen vascular action, and as a febrifuge, the “nitrous powders” sink into utter insignificance in comparison with this plant, which is not liable to the same objection as the tartarized antimony used in combination with calomel and the nitrate of potassa by many of the older practitioners, which too frequently increases that tenderness and



erethism already existing in the mucous membrane of the stomach and intestines.

In high vascular action, also, with cerebral disturbance, when the application of cups to the nape of the neck, &c., fails in restoring rationality to the sensorium, the most admirable results follow the administration of an enema, largely composed of the lobelia; or when accompanied with enervation and subsultus tendinum, the efficacy of the enema will be much enhanced by the addition of a portion of pulv. valer. and tinct. capsicum or camphor, which, when thus combined, produces a powerfully revellent action, changes the scene of excitement, and leaves the cerebral functions free.

Finally. In strangulated hernia, or in reducing dislocations of the largest articulations, where great relaxation is necessary a powerful enema of the plant, or of the bruised seeds, will fully answer the expectation of the medical attendant—attended, too, with equal benefit and much more safety than the tobacco injection used in the former difficulty, and will dispense with venesection, the tartarized antimony, and generally the hot bath, so universally recommended to overcome the rigidity of the muscular fibre.

These are the chief diseases of importance in which I have administered the lobelia inflata with entire satisfaction, and with a relief so prompt and decisive, as at once both astonished and delighted the patient.—*Medical Examiner, in Boston Med. and Surg. Journal.*

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16. *On the Use of Kermes Mineral in Diseases of the Respiratory Organs.* By DR. HERPIN, of Geneva.—Dr. Herpin has diligently observed the effects of this medicine during eight years, and has arrived at some interesting conclusions respecting it. If we consult dictionaries, dispensatories, &c., we find this substance stated as being chiefly indicated in chronic and suffocative catarrh, humid asthma, and at the termination of pertussis and pneumonia, especially in aged persons. Dr. Herpin reports differently. He says that he has never seen its use followed by even temporary benefit in the latter stages of pneumonia in the aged, when the mucous rales are abundant and asphyxia imminent. Given, too, at the commencement of pneumonia following capillary bronchitis, it is far inferior to tartar-emetic: and alterative doses of this same remedy are also far superior to it in the capillary bronchitis of old persons and children. The same want of success attended its trials in asthma and pertussis.

But when the disease, instead of being situated in the parenchyma and smaller bronchi, occupies the *larger passages*, the result is very different. Laennec and all those who have come after him have repeated the erroneous statement, that bronchitis, from its very commencement, when a mere coryza,

imparts to the ear a loud *râle*. Dr. Herpin some time since showed that bronchitis at the upper part of the tube, accompanied by considerable secretion, gave no auscultatory sign whatever. It is in these cases, where no abnormal sound exists, that *Kermes* is so useful, and is most so in the acute stage. He does not mean to say that it will arrest the progress of every pulmonary disease beginning without auscultatory signs, for whooping-cough, pneumonia and phthisis are among such. The catarrhs commencing at the upper part of the tube are soon arrested; but if *rales* announce the super-vention of deep-seated bronchitis, other medicines must be resorted to. In *tracheitis*, (denoted by pain opposite the top of the sternum, sometimes difficult deglutition, a hoarse, tearing paroxysmal cough and hoarseness,) the *Kermes* is still more indicated. No other medicine produces so rapid an effect in *laryngitis*, a few  $\frac{1}{4}$  grain doses often removing the hoarseness in a few hours, when the disease is recent. In this way it is of great service to singers. *False-croup* is very advantageously treated by it, and if seen early enough, it may be of good service in the true disease. *Chronic Laryngitis*, when not dependent upon phthisis, may be benefitted by this medicine, but in an inverse proportion to its duration.—Even when it does not cure it (for relapse is very frequent) it gives at least great relief. In the only case of *thymous asthma*, Dr. H., has had an opportunity of trying it, and which was a very bad one, it succeeded completely. In affections of the *pharynx* no success followed the use of the medicine, unless indeed these were connected with disease of the larynx. A frequent cause of *deafness* is a catarrhal condition of the extremity of the Eustachian tube, and in this case the *Kermes* effects a cure if the deafness has not existed beyond some weeks, and even alleviates it frequently when of very old standing. From his observations, Dr. H. believes he may deduce the conclusion that *Kermes is to some extent a specific for the affections of the upper portions of the air-passages.*

The *dose* has varied from 1 to 12 grs. in the 24 hours. Dr. H. has never exceeded the latter quantity, and, as a general rule, from 3 to 6 grains suffice. If we except infants less than 2 or 3 years old, the dose need not be much varied on account of age, children tolerating the remedy almost as well as adults. It may be given in an emulsion, powder with sugar, lozenges or pills. At the commencement of the affection, or when the respiration is much oppressed, it is desirable to excite vomiting. Three grains will certainly effect this, as will sometimes one or two in adults, and half a grain in children. To avoid purging or vomiting, we should give only very small doses, and after meals. When tolerance is once established, the *Kermes* does not irritate the stomach again. When first given it causes a sense of heat and dryness in the throat, which



soon become relieved by an increased humidity and expectoration. Dr. Lombard, who has employed this medicine with excellent effects, has often observed rose-colored streaks in the expectoration; but these soon disappear.—*Medico-Chirurgical Review*, in *Missouri Med. and Surg. Journal*.

17. *On Anæmic Murmurs.* By H. M. HUGHES, M. D., Assistant Physician to Guy's Hospital.\* In certain states of the system, or it may be, with certain conditions of the circulating fluid, as in chlorosis, or in anæmia from hemorrhage, or from other causes, murmurs frequently arise from the passage of the blood, independently of absolute disease of the heart or great vessels. These are termed *anæmic murmurs* or "*chlorotic bruits*."

They are ordinarily of the softer kind, and resemble the blowing of a pair of bellows ("*bruit de soufflet*"), but they are sometimes quite harsh, and resemble the rougher morbid sounds, as that of filing or sawing ("*bruit de râpe* and *bruit de scié*").

They are very generally supposed to be confined to the aortic openings. This is certainly a mistake. They are most assuredly very frequently connected with the pulmonary artery, in which murmurs, quite independent of any disease of the vessel or of its valves, are far from uncommon.

Murmurs often arise from some body pressing upon this vessel; as a solid mass, the result of pleurisy, of pneumonia, or of phthisis, or enlarged bronchial glands, abscesses of the anterior mediastinum, &c., &c. The murmurs frequently also coexist with chlorosis, or with other forms of anæmia. Are these latter murmurs, then, whether in the pulmonary artery or in any other part of the circulating system, to be distinguished with tolerable certainty from morbid sounds, the result of organic obstruction within or without the heart or large vessels?

Generally speaking, they may, I believe, be distinguished from each other; but they certainly cannot always be so; and never with absolute certainty by the mere character of the murmur alone. There are, I feel assured, some examples of these anæmic murmurs, which can be proved to be simply functional, and not to arise from organic disease of the heart or its vessels, or from pressure upon them, only by the results of treatment.

Let, then, the student be careful not to assert too confidently that a patient on the one hand, has organic disease of the heart, or great vessels, merely because he has a harsh murmur over the aorta, an occasionally irregular rhythm, and a vibrating pulse, which usually coexist with an anæmic condition of the body, or he may cause unnecessary alarm and

\* Clinical Introduction to the Practice of Auscultation, &c., p. 221.

anxiety; nor let him, upon the other hand, too hastily determine, that, because a murmur is soft, and his patient is an hysterical girl, with a pale face, and is subject to leucorrhœa and to amenorrhœa, that she has no organic disease; or some day, to his great surprise, grief, and mortification, and possibly also to his disgrace, he may find she has died suddenly with diseased heart.

Anæmic murmurs, however, it may be stated, are very local and are generally pretty much confined to the situation of the sigmoid valves, either aortic or pulmonary, or both; they do not follow the course of the large vessels so fully, or so frequently, as do the murmurs arising from disease of the valves, or of the arteries: they occur only during the systole of the ventricles; and as they cannot arise from regurgitation through the mitral valve, they are not heard very distinctly below the left nipple; they are always, so far as I know, accompanied with a smart smacking impulse; they generally disappear for a time while the individual is quiet, mentally as well as bodily, if by that quiet the heart assumes a natural impulse; and they are always diminished, and generally disappear entirely, under suitable treatment.

The origin of the anæmic murmurs has latterly been very generally attributed to a watery condition, or a diminution of ordinary viscosity, of the blood: in consequence of which it is believed that the particles of the fluid move more easily over each other, are therefore more freely agitated, and thus give rise to the vibrations which produce the murmur. This may have some, and perhaps an important, influence in producing them.

But there are other circumstances which also appear to play an important part in their causation. The principal of these is the remarkably quick and sudden contraction of the ventricles; in consequence of which the fluid contents of the cavities are propelled through the comparatively small area of the mouths of the large arteries in a shorter time than during the leisurely contractions of health, or the frequent, but not sudden, contractions existing in some other forms of disease. Though, therefore, no actual contraction exists, an obstruction is practically produced by the increased velocity with which the blood is propelled through the aortic and pulmonary openings. The increased agitation in the fluid thence arising it is at least probable, has a principal part in the production of anæmic murmurs.

If the heart beat quietly, and the impulse be natural, however decided the pallor of the face, and whatever the watery condition of the blood, no murmur, I believe, exists, when no mechanical obstruction is present.

It is also possible that the *quantity* of the circulating fluid is decreased in such cases, in addition to its *quality* being altered,



and that while, by the elasticity of their coats, the arteries are capable of accommodating themselves to the diminished quantity of the fluid, the cavities of the ventricles retain their normal capacity, and that on this account an absolute, as well as a comparative obstruction, may exist to the transit of the blood.

Concurrently with these anæmic murmurs at the origin of the large arteries, there is often heard, upon the application of the stethoscope to the side of the neck, a curious sort of humming noise, which ceases when firm pressure is exerted upon the jugular vein at a point above that on which the end of the stethoscope is placed. It is continuous, not intermittent like the arterial murmur, and is, therefore, sometimes called the "continuous humming," as well as the "venous murmur," — "*bruit de diable*," &c.

It most probably depends upon partial obstruction to the quickened flow of blood through the veins. Strong pressure causes it to cease; but without pressure, *directly or indirectly applied*, it is, I believe, never heard. Like the anæmic murmur of the arteries, it is supposed to be associated with a watery condition of the blood, and it is, we are told, a frequent, if not a constant, attendant upon that state of the system with which such a watery condition of the blood is a concomitant.

This statement is not made from my own observation, but if true, the venous hum may perhaps be considered a useful assistant indication of the anæmic state.

But great obstruction to the blood may, as has been previously hinted, exist; extensive disease may be present in the valves of the heart, or in the large arteries, and yet no murmur may be heard. This arises from circumstances which may be, as they have already been partially, illustrated by the stream, in which a certain rapidity of the current is necessary to produce such an agitation of the water as will give rise to sound. Though the bottom of a rivulet be very uneven and its banks exceedingly irregular, yet if the current be not tolerably strong, little or no ripple will be produced, and no sound will be generated. It is just so with the blood; rapidity of the current of the blood, as well as obstruction thereto, is necessary to produce such an agitation among the particles of the fluid as will give rise to sound.

Hence it often happens that a heart with extensive disease of the valves may be without murmur while the patient is quiet, and the circulation is slow; though immediately the circulation is accelerated, either by physical exertion or by mental emotion, a murmur becomes distinct. Hence, also, it happens, that when the cavities of the heart become greatly distended, in consequence either of the magnitude of the obstruction, or of defective nervous power, the ventricles are frequently incapable of acting upon and propelling their con-

tents with sufficient force to produce a murmur. The channel is irregular enough, but the rapidity of the current, and of the resulting vibrations, is not equal to the generation of sound. Hence, likewise, it arises, that when fluid is present to a large amount in the pericardium, the heart may be so oppressed with the accumulation upon the exterior, that, though great obstruction exist within, no murmur is produced. Thus it will often be observed that when the obstruction is greatest, the murmur, if even it be heard at all, is very feeble; and that when the obstruction is small, the murmur is very loud; thus also, in persons who, for weeks and months, and even years, have presented notably morbid cardiac sounds, these sounds, if the individuals are not carried off suddenly, very frequently, or perhaps even generally, cease altogether some days before death.

The cause of this, as before stated, is either that the heart does not contract with sufficient power, or if it act forcibly, that it cannot act upon, and propel through the contracted orifices, the large quantity of blood which distends its cavities with a rapidity sufficient to give rise to sound.

Let, then, the student ever bear in mind the truth, that mere obstruction is not in itself sufficient, but that a certain force or rapidity of the circulation must be necessarily combined with that obstruction, to give rise to morbid endocardial sounds. Murmurs may exist without any obstruction of an organic kind; but without a certain degree of force in the circulating current they cannot exist.—*Southern Med. and Surg. Journal.*

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18. *Certificates of Medical Men to Quack Remedies.*—Certificates of medical men to unqualified, ignorant, or unprincipled persons respecting preparations which are either universal, secret, or the objects of patents, have already been severely condemned on many occasions in the pages of *The Lancet*. But the subject is so important in itself, and its ramifications are so extensive and injurious, that very much remains to be said and reasoned regarding it. We hope to see the day when every man will from conscientious feelings, refrain from granting such certificates under any circumstances whatever, and when every one who desires well of his profession, will take the most energetic means to remove any suspicion of collusion with quacks and quackery. If this feeling could be actively aroused in the profession, we should no more see quacks adopt the names of medical men, and forge their certificates to the most destructive and abominable nostrums, nor have to witness otherwise respectable men making themselves ridiculous by testifying to the virtues or harmlessness of the most inconsiderable trifles. We smile at the obsolete power possessed by the ARCHBISHOP OF CANTERBURY, of making



his footman or valet a doctor of medicine, irrespective of education, or any other claim to the honour; yet we tolerate the still more mischievous system by which professional men themselves make practitioners in medicine by the grant of certificates. But we hold that every certificate granted respecting medicinal talent or virtue to any extra-professional person or thing, goes as directly towards constituting the ignorant medical practitioners, as the most flagrant abuse of the power vested in the archbishop ever did or could. It is no use mincing about terms or titles; the men we produce below,—HOLLOWAY, HUNT, KIDDLE, NEWBERRY, DA SILVA, COCKLE, STIVENS, SMITH, FRANKS, RUPPINI, and the rest, are as much medical practitioners, engaged in obtaining money by prescribing medicines, or medical treatment, as Dr. CHAMBERS or Sir BENJAMIN BRODIE themselves. The more is the scandal that they should, any of them, be able to vaunt medical sanction of any kind to their, in many instances, nefarious proceedings.—*Lancet*, July 25, 1846, in *Medical News*.

19. *Mode of arresting Hemorrhage from extraction of a tooth.*—The editor of the *Lond. Med. Gaz.* states that he has known the most obstinate bleeding, following the extraction of a tooth and continuing some hours, arrested by the use of the oil of turpentine on a pledget of lint, kept over the bleeding surface for a short time by moderate pressure.—*Med. News*.

20. *Combination of Carbonate of Iron with Sulphate of Quinine in Intermittent Fever.*—Prof. LIPPICH, of Padua, recommends the addition of the carbonate of iron to the sulphate of quinine in the treatment of periodical fevers. The following is his formula:—

Carbonate of iron, One gramme.

Sulphate of quinine, One gramme.

Extract of taraxacum q. s.

To be made into a mass of proper consistency and divided into thirty pills, two of which are to be taken every two hours. The carbonate of iron may be gradually increased to two grammes.—*Gaz. Méd. de Paris*, in *Med. News*.

21. *Treatment of Aphthæ by Sulphuric Acid.*—Prof. LIPPICH, of Padua, has recommended the following liniment in the treatment of aphthæ:—Honey, 15 parts; diluted sulphuric acid, 1 part, by weight. The ulcerated surfaces should be occasionally brushed over with this liniment by means of a camel's-hair pencil. The proportion of sulphuric acid may be increased if the case is obstinate.—*Med. News*.

22. *Singultus.*—M. ROSTAN has recently employed with success strong pressure on the epigastrium in several cases of severe hiccup.—*Ibid*.

## TO READERS AND CORRESPONDENTS.

Communications have been received from Prof. McLean, Drs. Jos. W. Cooke, Lyman Brackett, and Wm. Butterfield.

We have also received the following works and periodicals:—

The United States Dissector or Lessons in Practical Anatomy: By Wm. E. HORNER, M. D. Edited by HENRY H. SMITH, M. D. Phil: Lea & Blanchard. 1846. pp. 444. (From the Publishers. For sale by Brantigam & Keen, Chicago.)

Coley on Infants and Children, in Select Medical Library. Edited by JOHN BELL, M. D. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1846. pp. 414. (From the Publishers.)

Researches, Historical, Topographical, and Critical, on Yellow Fever. By BENNET DOWLER, M. D., of New Orleans.

A Review of "Homœopathy, Allopathy & Young Physic," by L. M. LAWSON, M. D.

Summary of the Transactions of the College of Physicians of Philadelphia, from April to August, 1846.

Statements of Facts in Relation to the Expulsion of James C. Cross from Transylvania University.

A Vindication of Character and an examination of the Accusations of Dr. T. Reyburn's Supplement to the St. Louis Med. and Surg. Journal. By F. KNOX, M. D.

Dr. FOUGEAUD's second defence against the charges of Dr. REYBURN.

Circular announcing a Course of Private Medical Instruction by Wm. H. VAN BUREN, M. D., and C. E. ISAACS, M. D., of New York City.

Report of the Medical Department of the University of Pennsylvania, for the year 1846: to the Alumni of the School. By the Medical Faculty.

Annual Circular of the Medical Department of Illinois College, Jacksonville, Ill.

Annual Announcement of the Medical Department of Pennsylvania College, Philadelphia.

Catalogue of the Faculty and Students of the Medical Department of the University of the State of Missouri for 1845 and '46.

Annual Circular of the Massachusetts Medical College, with a history of the Medical Department of Harvard University. A catalogue of Graduates, &c., Boston.

Annual Announcement of the Medical Department of the St. Louis University.

Catalogue of works in all branches of Medicine and Surgery, including the Collateral Sciences. Published by Ed. Barrington & Geo. D. Haswell, 293 Market st. Philadelphia.

I. & H. G. Langley's Medical Catalogue for 1846. No. 8 Astor House, New York.

The Journal of Health and Monthly Miscellany, Boston. (In Exchange.)

The Medical Examiner. (In Exchange.)

The Bulletin of Medical Science. (In Exchange.)

The Western Journal of Medicine & Surgery. (In Exchange.)

The Buffalo Journal, and Medical Review. (In Exchange.)

Southern Medical & Surgical Journal. (In Exchange.)

The Western Lancet & Medical Library. (In Exchange.)

The St. Louis Medical and Surgical Journal. (In Exchange.)

The Medical News and Library. (In Exchange.)

The American Journal and Library of Dental Science. (In Exchange.)

The Boston Medical and Surgical Journal. (In Exchange.)

The Missouri Medical & Surgical Journal. (In Exchange.)

The New York Medical & Surgical Reporter. (In Exchange.)

The New York Journal of Medicine and the Collateral Sciences. (In Exchange.)

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## ILLINOIS AND INDIANA

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### PART I.—ORIGINAL COMMUNICATIONS.

#### ARTICLE I.

*Blindness Caused by the Use of Sulph. Quinine.* By JOHN McLEAN, M. D., Prof. of Materia Medica in the Rush Medical College.

Quinine when freely administered produces a species of intoxication, tinnitus aurium, a sense of fullness in the head, cephalalgia, and other affections; and sometimes, although not so frequently, blindness, more or less lasting.

M. Trousseau, relates the case of a tailor, who, for the relief of a periodical asthma, took 48 grs. of the sulph. quinine, at one dose. In four hours, he experienced ringing in the ears, dullness of the senses and vertigo; and in seven hours, he was blind and deaf, his mind wandered and he was unable to walk. These effects, for which no active medicine was administered, gave way spontaneously, during the night. A young girl at the "Hôpital Cochin," in consequence of having taken freely of the sulph. quinine, became affected with amaurosis, which continued at the end of three weeks, notwithstanding, appropriate and energetic means were employed for the restoration of her sight.

Dr. Rognetta, who claims for Rasori, priority in the use of quinine in acute rheumatism, "thinks, with the Italian physicians 'that the limits of tolerance should not be exceeded, and that beyond this, a species of poisoning may be induced, known by deafness, blindness, hallucinations, hæmaturia, &c.'" (See "Boston Medical and Surgical Journal," vol. 32, p. 250.)

Blindness, although not so common as the other effects, is not unfrequently produced, and may be prolonged for months or even years. It is not, however, generally known, that such may be the result of this medicine, when given in large quantities. The following, are some cases occurring in this place and immediate vicinity, which show that when thus administered, it may produce blindness more or less permanent.

*Case 1st.* Mr. P. of the town of Barry, Jackson co., was in the year 1840 attacked with a low grade of remittent fever, the nature of which was such, as to cause the attending physician to administer the sulph. quinine in large and frequent doses. Sixteen grains, (as judged by sight,) were ordered every hour, and continued until nearly one ounce was taken. Before the quinine was discontinued, he became perfectly blind, which, with a slow and gradual amendment continued during the first year. Later than this, I have not been positively informed in regard to the case, but should judge, from what indirect information I have received, that his sight is not yet perfectly restored.

*Case 2d.* Mrs. B., of the town of Concord in this county, was, a few years since, reduced so low by the endemic fever of the country, that her life was despaired of. As a last resort large quantities of quinine were given, and while taking it she became blind, which continued for several weeks. As she recovered her health the blindness gave way, and her sight was finally restored. Not being acquainted with the particulars of this case, I can give but these few general outlines.

*Case 3d.* P. M. Everett of this place, was, in the autumn of 1843, attacked with remittent fever, and in a few days became so greatly reduced, as to leave but slight hopes of his recovery. Sulph. Quinine was therefore prescribed, in doses averaging three grains, every hour, and was continued for three days. In a short time, he became deaf and soon after so blind, that he could not see a burning candle, when placed immediately before his eyes. The blindness took place on the third day, after the commencement of the free administration of the sulph. quinine. Previous to this, and at this time, his mind, (with the exception of occasional slight wanderings) appeared to be perfectly clear. After some weeks, his sight became partially restored, but continues more or less imperfect, even at the present time.



During the greater part of the first year, he could look steadily at the sun, without seeing it, or even any painful sensation being produced. When he first began to see sufficiently to read, which was in the course of the first year, he could perceive but a small luminous spot upon the paper, about one inch in diameter, within which, he could distinguish letters, but all without this, was cloudiness and confusion. During this time, the pupils were very much dilated, and he could see objects at a distance much better than those near by. His sight has continued to improve, ever since; and at the present time, although quite imperfect, is sufficiently good to enable him to read and write, although with some difficulty. The pupils are still considerably dilated, and it is with great difficulty, that he can discern objects by twilight. The direct rays of the sun upon the head, produce pain there, accompanied with a painful sensation deep in the orbit of the eye and a disordered vision. At the present time, exercise easily produces fatigue, by which his sight is much impaired.

*Case 4th.* In the month of April, 1846, Dr. R. of this place took in doses of six grs. each, three drachms of quinine in 36 hours; at the expiration of which time, he became perfectly blind. His hearing was somewhat blunted, although, it did not, in degree, equal the blindness. On the two succeeding days, his sight, although very imperfect was considerably restored. Had he lived, the probability is, that this imperfect sight would, as in the former cases, have continued a considerable length of time.

*Remarks.*—We think it clear that the blindness in the foregoing cases was the effect of the quinine; for we see it in each, coming on suddenly during its administration in large quantities, and at a time, when no other medicine was given that would be likely to produce such results. Here, cause and effect appear to be closely connected, and are so plain, as scarcely to admit of the possibility of a doubt. From the symptoms accompanying the foregoing cases, we should judge that the proximate cause of the blindness, was mainly an affection of the retina or optic nerve, producing amaurosis.

I have recorded the foregoing facts, with the hope that they might be the means of causing some useful suggestions, in relation to the physiological effect and administration of this medicine.

In connection with the foregoing, we might mention the case of Mr. B. Porter, of this town, who has had for sixteen years and upwards, amaurosis of the left eye, which he supposed to have been produced by the application of a strong subacetate of copper ointment, to that side of the face, for the purpose of curing *Herpes circinatus*. As the ringworm gave way, the blindness came on.

About one year since, he suffered with a periodical neuralgia, for which I ordered 32 grs. of quinine to be taken in divided doses of 4 grs. each, every two hours. Under its influence, the neuralgia disappeared; and on the following day, he could see objects quite distinctly with the amaurotic eye—much better than ever before, since it first became diseased, and he was much elated, with the thought of soon regaining its sight. He, however, took no more quinine, and in a few days, the benefit produced to that eye was entirely lost.

Jackson, Mich., Sept. 22, 1846.

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#### ARTICLE II.

*A case of Strangulated Hernia in a man aged 82 years.* By Dr. JESSE HARVEY, of Harveysburg, Ohio.

B. M., aged 82 years, was afflicted with inguinal hernia of the intestines for about eleven years; the bowel often passing down but returning again without difficulty. About the middle of the third month, 1844, it became so strangulated, that a physician, who was called in, returned it with considerable difficulty. About two weeks after this time, while exercising, the bowel passed entirely down into the scrotum, filling the sack completely. He went to bed and made the usual efforts to return it; but failing, sent to my office about 6 o'clock in the evening, for assistance. At about 8 o'clock I arrived at his house, found him in great pain, and immediately entered upon the regular routine of operations, by the taxis, &c., for his relief. After an hour's labor I felt that I should fail,—bled freely and tried again with no better success. I wished to try the tobacco injection, but believing it would require to be carried to the last extreme to succeed, I desired counsel. While he was being brought, I continued my efforts, but to no purpose. When the physician arrived we commenced again,



and after an hour the case was pronounced a hopeless one, except relieved by an operation, the tobacco injection having been carried to full effect.

Now about 12 o'clock at night further counsel was requested, the physician previously called, declaring that his nerves would not permit him to witness the operation. A messenger was dispatched for my friend Dr. Fisher, of Waynesville, who did not arrive until about 9 o'clock the next morning. We then applied ice to the parts for an hour or two, and made such efforts as were thought best, but all failed, and at about 12 o'clock we commenced the operation.

The sack was carefully opened with the scalpel and the stricture of the ring divided sufficiently to allow the bowel to return; but adhesions had formed, that prevented. I passed my finger into the vaginal sack, broke up the adhesions between the two serous membranes, and the intestine was replaced. The wound was dressed and a dose of calomel, ipecac. and morphine, was given, to be followed by a portion of castor oil with spts. turpentine.

Called the next day,—the bowels had been freely moved. Repeated the prescription of yesterday. The diet to be toasted bread and water sweetened.

The next day, 4th month, 6th, same prescription continued.

7th, mercurial action apparent and the calomel discontinued—oil of turpentine given in small doses every fourth hour, until the bowels were moved—this was continued daily until the 10th. The patient improved rapidly, the wound healed kindly and on the 14th my visits were discontinued.

About a month after this, he suffered a severe cholic, which with difficulty was relieved. He recovered from it rapidly, and enjoys good health. The operation did not close the ring, yet with the aid of a truss, he can walk or ride even on horseback, and makes baskets for a livelihood.

The ice had at least the good effect to restrain hemorrhage as the quantity lost was not sufficient to be troublesome during the operation.

## ARTICLE III.

*Case of Placenta Previa.* By W. BUTTERFIELD, M. D., Ottawa, Ill.

The following case will perhaps be considered somewhat illustrative of the "*vis medicatrix naturæ*," upon a point of great importance in obstetric practice, which has lately occasioned a spirited controversy between high authorities. Taken as an isolated case, it would seem to sanction the practice of removing the placenta, where flooding becomes dangerous, before the delivery of the child is accomplished either naturally or by turning, as the most effectual means of arresting hemorrhage in placenta previa. On the 20th of May, last, early in the morning, I was requested to visit Mrs. I., in labor with her second child. I was informed that she considered herself about seven months advanced in pregnancy. It appeared that upon rising from her bed a short time previously, she was seized with severe pain which was followed by the rupture of membranes with escape of the waters. The pains occurred at short intervals accompanied by hemorrhage. On examination, I found the os uteri dilated to about the size of a quarter of a dollar, but exceedingly rigid and resisting: nevertheless, I satisfied myself that it was a case of placental presentation. During each pain the funis in which no pulsation was perceptible protuded into the vagina. After waiting a considerable time, as the pains did not increase either in strength or frequency, and the hemorrhage being but trifling, I determined to leave, enjoining my patient to observe strict rest and the horizontal posture during my absence. The room was ordered to be kept cool, and acidulated beverage administered. The *T. opii. camph.* was also given more for the purpose of calming and soothing the patient's mind than on account of its medicinal properties. On returning after a lapse of three hours, the patient was found in the same condition and therefore interference was neither necessary, nor practicable. After repeating my injunctions as to rest and the posture, and requesting I might be informed the instant either flooding or pain returned, I again left. At the expiration of four hours, not having received a message in the interim, I paid another visit. The os uteri was now more dilated and less rigid, with a considerable segment of the placenta



projecting into the vagina. As however the uterine action was still feeble, the hemorrhage but trifling and the patient's spirits and strength being good, with an unblanched countenance, I determined upon a further delay. I therefore took my departure with a distinct understanding that I should be apprised as soon as any emergency arose. About half past nine o'clock P. M., I received an urgent summons to attend. On my arrival, the placenta had just been expelled, and both arms and one leg of the foetus were protuding through the os externum. In this state of things, the obvious course was to bring down the inferior extremities, an object I was preparing to accomplish, when a violent pain came on, which suddenly effected the delivery without any alteration having occurred in the presenting position of the child. The hemorrhage entirely ceased on the expulsion of the placenta, and the patient experienced an uninterrupted and a rapid recovery. It is almost needless to add, that the child, apparently of about seven month's growth, was dead.

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#### ARTICLE IV.

To the Editor of the Illinois and Indiana Medical & Surgical Journal:---

Dear Sir,—A case of some interest recently fell under my observation.

Mr. J. W——— of this town, æt. 30, of a slender constitution and strictly of a scrofulous diathesis, called on me some five years since, with a general derangement of the digestive organs. The constitution thus delicate, I advised him to the moderate use of the blue pill with the extract of conium, and a weak infusion of columbo, which had a favorable effect, and he gradually improved, and was quite well for two or three years, when he again called on me for the same prescription. He then informed me that he had a disease of one of his testicles, and that the same existed when I first saw him, and that it disappeared on following the prescription I gave him, and he supposed the same effect would be produced should he enter again upon the same course. I consequently gave him the same prescription, which he followed some weeks, but to no effect. After passing three or four months, without any medication, he called on me to examine his case, and on

examination, I found the left testicle as large as a goose egg, and scirrhus. I advised its extirpation, and in the course of two months he came to the conclusion to have the operation performed, I removed the testicle in March, '45, which weighed 14 oz. He immediately recovered and was able to go out in two weeks after the operation.

His general health improved, and he was able to perform some labor during the summer and autumn following but late in December, '45, his health began to fail, and as the family had become attached to the Thompsonian practice I did not see him until June, '46, when I made him a friendly visit.

At this time, I found him low and feeble, suffering much pain at times from a tumor presenting itself a little to the left and near the lower part of the ensiform cartilage of the sternum. He informed me that the tumor made its appearance some two months previous to my visit. I examined the abdomen and found quite a large tumor occupying nearly the whole of the left hypochondriac region, it was hard and not very tender on pressure. The pain was acute and lancinating. The digestive organs were much impaired, at times very costive, and again attended with a diarrhoea which produced a general degree of prostration.

I saw him again on or about the middle of August, the tumor had increased much in size, occupying the whole of the left hypochondriac and most of the epigastric regions, descending as low in the abdomen as the umbilicus, producing much pressure upon the stomach, heart and lungs, especially when in a horizontal position. There were many elevations and depressions to be distinctly felt at this time, and a degree of elasticity in the whole tumor. I saw him no more until after his death, which took place on the morning of the 8th of September, at which time, myself, with Dr. Tuttle, of this place, were called to make a post mortem examination, and the following phenomena presented itself. On opening the abdomen a large fungoid tumor was to be seen, filling the whole of the left hypochondriac and epigastric regions, and extending as low as the umbilicus, and fluctuation distinctly felt in all parts of tumor, except on the left side, where it seemed more hard and unyielding on pressure. Adhesions to the peritonium had taken place over most of the surface of the tumor, coming in contact with that membrane and required the scalpel to



separate them. The tumor involved the duodenum, jejunum and the arch of the colon, which extended through a portion of the tumor and it became necessary to divide them in order to remove it. It also involved the aorta and vena-cava ascendens which much impeded the circulation, and had attached itself to the left kidney which also participated in the disease. It was firmly attached to the spine for six or eight inches in extent. The tumor weighed eight pounds, and presented a great number of abscesses containing from one gill to one drop of pus and resembling the medullary part of the brain in its consistency and oily nature and of a variegated reddish color, in some parts approaching to white.

All other parts, were healthy save a slight enlargement of the liver and three or four small abscesses on its surface.

JOHN COOKE, M. D.

Manchester, Vt., September 11, 1846.

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#### ARTICLE V.

#### *Case of Hydrocephalus successfully treated by Iodide of Potassium.*

By LYMAN BRACKETT, M.D., of Rochester, Fulton co., Ind.

Josephine S. ætat 6 years, was seized on the first of April, 1846, with the usual symptoms of Hydrocephalus, which continued to progress, in defiance of the most active treatment, given with a view of checking the inflammation and preventing the effusion of serum, the symptoms of which have given the name of hydrocephalus to this truly obstinate and at times, fatal disease. The inflammation continued, and effusion took place (as indicated by the symptoms,) after the usual course had been steadily and perseveringly tried for the space of two weeks. During the last six days of this time she had been lying insensible to sight and sound; pupils very widely dilated and insensible to the strongest light. Continually rolling her head from side to side. Hemiplegia of right side, and partial paralysis of the left. Incessantly moaning, except when she would throw her left hand to her head, and cry out as if in great distress. This happened about every half hour. Vomiting would almost invariably happen when she was raised in bed into a sitting posture. Involuntary passage of fœces and urine. Then after having tried all other custom-

ary remedies, I resolved on using the iodide potassium, knowing she could not long survive in her then condition.

I began by giving an aqueous solution of the iodide, (compounded of iodide potassium 3i to 3i water,) gtt. xv. every three hours increasing the dose gradually to 30 gtt. An evident amendment was the next day perceptible, when some soreness of the mouth and bleeding of the gums took place. From thence forward she improved rapidly, and on the fourth day from commencing the iodide, I had the satisfaction of pronouncing her out of danger. The loss of power over the muscles of locomotion and of speech was not, however, perfectly relieved by it, but was restored by the epidermic application of a solution of strychnine along the course of the spinal column. The solution of strychnine was of the following composition:—Strychnine, grs. viii.; acetic acid 3 i.; alcohol 3 i. If you think the preceding case is worthy of a place in your Journal you will please publish it. I have made it as brief as possible that it might not occupy too much space.



## PART II.—REVIEW.

## ARTICLE VI.

*A Practical Treatise on the Diseases of Children.* By JAMES MILMAN COLEY, M. D., member of the Royal College of Physicians, London, &c. &c. &c. Philadelphia: Ed. Barrington & Geo. Haswell. 1846. pp. 414. 8 vo. (From the Publishers).

The diseases of children have lately received a large share of attention from some excellent observers in the profession, and are just beginning to occupy that rank in the studies of practitioners, to which their frequency and severity, justly entitle them. Still we frequently find physicians in extensive and successful practice, who decline, in most instances, to prescribe for young children, turning them over to the care of nurses or old women, as more competent to take charge of their diseases. Not only is this the case with regard to their internal or *medical* diseases, but also in cases of surgical diseases as congenital hernia, *nævi*, &c., many of which we have seen neglected for months and years by the advice of medical men. Not only are physicians who neglect the diseases of infants in error, in supposing them more obscure and less amenable to treatment than those of adults, but they thereby, are led to neglect that part of their appropriate duties in which they might be most useful, for every one familiar with the diseases of infants, will agree that they are more easily recognized and more successfully treated than those of adults. Indeed if we except two points, viz: distinguishing cerebral from gastric and intestinal affections and detecting the existence of lobular pneumonia, we know of none of these affections requiring unusual skill for their diagnosis or treatment. The work before us is one of considerable pretension, the author—

“Having received a surgical as well as a medical education, and having been extensively engaged with operative surgery in the country, many years previous to my connection with the College of Physicians, and my residence in London, I have enjoyed singular opportunities of observing the origin and progress of surgical as well as medical cases, and acquiring that discrimination and manual dexterity, which

are necessary qualifications in any one who undertakes to instruct others on subjects requiring a practical knowledge of both branches of the profession.”—[Introduction.]

There is, however, one department which is entirely omitted viz: the hygienic treatment of children, for which he refers to the works of Drs. Underwood, Maunsell, and Evanson, and to which we would add Dewees, whose remarks on this head are extremely judicious.

The first division of the work is devoted to the surgical diseases of children, embracing every form of Hernia, Club foot and deformities, diseases of the eyes and eyelids, hydrocele, &c. The remarks upon each of these are brief, just, and present little new or remarkable.

We extract his discription of sanguine tumors of the scalp and refer such of our readers as may be desirous of further information on the subject to a monograph by Dr. Geddings in the Am. Jour. of the Med. Sciences.

“*Hydrocephalus Externus, or Cephalœmatoma.*—This is a tumour found on the head of the infant generally after a tedious labour, especially when the action of the uterus has been long resisted by the bones of the pelvis. The swelling consists of blood extravasated either between the integuments and the pericranium, or between the latter and the skull. The swelling varies in size from that of a hen’s egg to that of a large orange.

“*Treatment.*—As this disease always disappears spontaneously by the gradual absorption of the blood, all we shall be required to do is to promote that process. With this view the following lotion or liniment should be prescribed:—

R.—Ammonia Hydrochloratis, ʒj.  
Aquæ Distillatæ, ʒvj.

M. et fiant lotio.

R.—Potassæ Iodidi, ʒij.  
Adepis, ʒj.

M. fiant Linim. singulis noctibus tumori affricandum.

R.—Linimenti Hydrargyri, ʒj.

Fiat linimentum semel quotidie, parti affectæ illinendum.

“When the tumour is very large, Dr. Black advises that it should be punctured or incised to evacuate the effused blood.\* Mr. Waffstaff, on the contrary, says this is a bad practice;† and I have never met with any case which required any other remedies than the external applications I have mentioned.”

\* “Edinb. Med. and Surg. Journal,” 1841.

† “Lancet,” No. 743, p. 303.



Next in order follow diseases of the skin, and we lay before our readers the remarks on Vaccine, with the observation that the facts do not set at rest, as yet, the question in the sense supposed by Dr. Coley.

“When the vaccine vesicle has regularly passed through all these stages, the constitution is afterwards as securely protected against the attacks of small pox as if it had been affected by the natural or inoculated variola; and therefore the practice of repeating vaccine inoculation in the same individual is perfectly unnecessary, as was clearly proved by the observations of Dr. Jenner, and the accumulated experience of all intelligence vaccinators since his time. It has been proposed\* that re-vaccination should be performed every five years, and if it should *succeed*, that it may be concluded that such repetition of the disease is not too frequent. The success of repeated vaccination is no proof that the constitution has lost its influence, as cow pox vesicles may be excited as frequently as the surgeon may wish, in most, if not all patients who ever had been susceptible of the disease; and the fact of two successive crops being generated, after the interval of a few days, by Mr. Bryce’s test, is a proof that the system is not rendered insensible to re-vaccination by any particular interval of time. To admit that the prophylactic power of vaccination expires at a given time in any individual, and that it may be revived by re-vaccination, amounts to a confession that the primary operation had been imperfectly performed, or that the human constitution had undergone some degeneracy or modification since the discovery of Jenner. The occasional eruption of modified or natural or small-pox, even in the confluent form, after the regular vaccination, is only a proof of some peculiarity of constitution, which appears to prevail in certain families; but repeated vaccination, however perfect, will have no more effect in removing such idiosyncrasy, than in altering the features of the patient.

“When vaccination is imperfect or irregular, it affords no certain protection. Its progress should therefore be carefully observed. One imperfection consists in the absence of the areola and secondary rose-rash; another in the formation of pus in the first instance instead of serum, accompanied with premature inflammation and decadence, and sometimes with ulceration. The cause of these irregularities is sometimes constitutional; as I have found them to occur repeatedly to the same individuals when vaccinated with healthy lymph, taken from different patients, which has produced the perfect disease in others. One of the most frequent causes of failure

\* “Wilson on Diseases of the Skin,” p. 91.

or imperfection, consists in the practice of inserting vaccine fluid taken at too late a period of the eruption, when it is beginning to undergo the transition from pellucid to opaque lymph. Another cause has appeared to me to consist in a defect in the virus, produced by its modification in a patient labouring under marasmus, or some specific disease. Hence I always recommend the supply to be taken from the vesicle at the earliest possible period, and from the most robust and healthy subject. When the inflammation and scab are remarkably small and premature, the patient cannot be considered safe, and should always be re-vaccinated with lymph taken early, and carefully selected. The success of vaccination depends in some measure on the manner in which the operation is performed. I believe the most certain mode of introducing the lymph is in a fluid state, by means of the lancet, on the point of which it is taken. Another effectual mode is by the aid of a few fine gilt needles, which have been immersed in the virus; and when it is inconvenient or impossible to procure fluid lymph, it may be used in a dry state, either on the point of the lancet or the needle. Ivory points are generally employed for this purpose, but they are objectionable on account of their requiring the puncture of a lancet before their insertion. After the operation is completed, the arm should be left exposed about ten minutes, to afford time for the punctures to dry. Much nicety is required in this simple proceeding, to prevent too much oozing of blood, which is apt to wash away the lymph after it has been inserted under the epidermis. The nurse should also be desired not to wash the arm until the vesicle has passed through all its stages."

In regard to its protective power, however, when properly employed there can be no doubt.

"As to the protective influence of vaccination, that has been sufficiently proved to be quite as great as that of inoculated small-pox: but it must be observed, that when variola occurs in the epidemic form, more cases of modified small-pox will succeed the pestilence than would appear under ordinary circumstances; and the recurrence of small-pox after variolus inoculation was formerly found as frequent as modified small-pox is now after vaccination."

The following remarks upon the treatment of *nævi materni* are also of interest.

*Treatment.*—One of the best remedies for varicose excrescence or *nævus*, is creosote, which may be applied about once a week to the whole of the diseased surface by means of a feather, or camel-hair pencil. By this application twice used,



I succeeded in removing this disease, which occupied thirty square inches of the skin of the abdomen, and which had been only temporarily cured by an extensive eschar produced by hydrate of potash. Creosote has besides this decided advantage over the latter remedy, namely, that of destroying the disease without disfiguring the skin. When the marks appear distinct from each other, every one, however minute, must be touched with the escharotic. Nitric acid will often succeed. I have ascertained from long experience, that this disease is much less apt to return or appear round the circumference, after it has been removed by escharotics, than when it has been extirpated by the knife; and therefore I have of late years discontinued to advise such an operation. Many other remedies have been adopted with various success by different practitioners. The mode of applying nitric acid adopted by Sir Benjamin Brodie, is by using a glass pen dipped into the acid and drawn over the diseased parts, or by puncturing the principal vessels, and afterwards introducing a little acid with the pen.\* Nitric acid, as well as creosote, leaves no mark. Dr. Sigmund applies repeated compresses saturated with liquor plumbi diacetatis (or what he calls acetum plumbi),† with success."

The chapter upon diseases of the mouth is full and interesting. Passing over his remarks on aptha as containing nothing new we would direct the attention of our readers to the subject of "Muguet or Mucosity," which is not often recognized by practitioners as a distinct disease.

"It consists of a secretion of white, thick opaque laminae, adhering to the free surface of the epidermis, or mucous membranes. It is most frequently observable on the tongue, cheeks and fauces, either in distinct spots or patches, or covering the entire upper surface of the tongue. When attentively observed, it will be found to be preceded by slight diarrhoea, or dysentery; and it is a common concomitant or sequence of those fevers which originate in gastro-enteritic inflammation. Being readily conveyed to the delicate skin covering the nipple, it is a frequent cause of those excoriations which affect that part during lactation; but this contagious property is denied by Bacon and Billard. These white, milk-like deposits are readily separated from the epidermis by gentle friction, and are speedily renewed by the inflamed surface."

"*Treatment.*—As muguet is seldom found unconnected with disease in some other part of the alimentary passage, on which its continuance is dependant, I must refer the reader to those

\* "Medical Times," Dec. 19, 1841.

† "British and Foreign Medical Review," Jan., 1844, p. 239.

affections. At the same time, I may observe, that the most simple attack will seldom entirely subside without the assistance of internal medicine, as castor oil, rhubarb, or sulphate of magnesia. In some obstinate cases, it may be found necessary to administer chloride of mercury and jalap, according to the directions given for aphtha. The only local treatment required is the frequent abrasion of the diseased secretion, by means of a lotion composed of ten grains of alum to an ounce of water."

The treatment of gangrene of the mouth consists in touching the sloughing points with concentrated nitric or muriatic acid, if the slough be extensive this should first be freely divided so as to allow the acid to come in contact with the living parts. Tonics and fresh air with cleanliness are essential, and in this region, quinine is often useful, as the defect of constitution, upon which the disease depends, is produced by that unknown cause of intermittent and remittent diseases called "malaria." Gangrene of the mouth he separates from "Cancrum Oris, or Sloughing Phagedæna of the Mouth," which latter is very often the effect of mercurial inflammation, and followed by immobility of the jaws, &c. The following is his treatment of this latter affection.

"This disease is rapidly cured at its origin by a few applications of the nitrate of silver. In the more advanced stages, it will be necessary to apply a lotion composed of diluted hydrochloric acid in the proportion of half an ounce or an ounce to a pint of water; and, when the sloughing and ulceration are rapidly extending, the nitric or hydrochloric acid should be applied undiluted, in the manner directed for the treatment of gangrene in the mouth. When the gums are irritated by stumps of teeth, these should be extracted. With respect to internal remedies, few will be required, except such as are necessary to support the strength, in conjunction with nourishing diet and occasional opiates and aperients. In many of the most unfavourable cases, Mr. Wallace, of Dublin, has effected a cure by the internal exhibition of sesquicarbonate of ammonia, in doses varying from five to twenty grains; and Dr. Hunt has successfully treated the disease by giving from twenty to forty grains of chloride of potash, in the course of twelve hours."\*

The article on Dentition is very full, and some of the views of the diseases attendant on this state are original, whether just or not we leave our readers to determine.



*Dentition.*—A knowledge of the process which nature adopts in the formation of the deciduous teeth, is a necessary part of a medical and surgical education; and the general attention which dentition receives during childhood, renders it imperative that I should not omit any information on so interesting a subject in the present treatise.

“In the foetus, about the third month, the margin of each jaw is found to consist of a channel, enclosing a mass of follicles, destined to form the future teeth. At the fourth or fifth month these follicles become more obvious, being then composed generally of eight distinct, globular capsules, which may with care, be elevated by the anatomist from the maxillary bone, so as to display the artery and nerve, which penetrate and form a pedicle for each. Minute perpendicular eminences, the rudiments of the alveolar processes, now present themselves; and as the foetus approaches the period of its birth, the transverse septa are distinguishable, and the sockets become more complete. As soon as the separate cells are formed, the capsules no longer retaining their globular shape, accommodate their figure to their respective alveoli. Each jaw generally contains at birth ten of these partitions,—four for the incisors, two for the canine, and four for the molar teeth. Each capsule being now minutely examined, is discovered to consist of two membranes, the inner one being designed to construct the tooth and deposit its enamel, and the outer one to erect the alveolar processes; and as the operations of these membranes proceed, they are perceived ultimately to constitute the periosteum for the respective teeth and sockets. Between these two membranes a fluid is observable, which is more or less considerable in proportion to the age of the foetus;\* and which, as the formation advances, is gradually absorbed. In the inner, or proper, capsule, about the fifth month the gums of the incisive teeth are perceptible at the upper part, next those of the canine, and afterwards those of the first molar teeth. To these primitive gums succeed solitary particles of bony matter in the capsules of the incisors and canines, and a congeries of osseous scales in the first molar membranes. The ossific process then proceeds from the crown of each tooth downwards, and the enamel is afterwards deposited by the inner surface of the same membrane, which had secreted the osseous matter. Should any constitutional disease occur during this delicate animo-chemical process of crystallization, it is rendered incomplete, and the teeth, which are ready for the reception of enamel at the period destined for its deposit, are either partially supplied with or totally deprived of it. Hence, in delicate children we find, after severe illness, the first incisors frequently present horizontal

\* Mekel. “Manuel d’Anat. Generale Descript. et Pathol.”

patches of imperfect enamel, alternating with bony furrows, entirely deprived of this covering.\* The destined period for the deposition of the enamel having expired, this function of the inner membrane ceases; and as the crown of the tooth advances, the capsule, by which it was constructed, being no longer required, is gradually absorbed.

“The growth of the fangs now proceeds downwards, while the alveoli are simultaneously increased in depth; and when the teeth are explored during this process, the crown, or enamelled portion, is found complete externally, while the root remains towards the lower part still in a soft, pulpy, rudimentary state. The process of ossification commences at first externally, and when the outer portion of the crown is complete with its bone and enamel, the cavity is afterwards filled up; and as the root is being prolonged and ossified by the pulp, an inner, vascular membrane is observable, which constructs and lines the internal bony canals, through which the arteries and nerves proceed to their separate teeth. Thus we find that each complete tooth has, at the part which enters the alveolar process, both an internal and external membrane.†

“About the seventh month after birth the two middle incisors present themselves through the gums on the lower jaw, then the two outer incisors above and below, afterwards the eight molars, and, lastly, the four canines; making altogether twenty temporary or deciduous teeth. Some deviation from this proceeding occasionally occurs; the two lower incisors are now and then cut before birth, in which case they soon become deciduous; those on the upper jaw sometimes appear first, and, in some rare instances, no teeth are observed until the expiration of almost two years, which is the period generally occupied for the appearance of the entire set. In one case the two middle incisors, which were first perceptible so late as fifteen months after birth, became quite loose, projected, and were ready to be cast off at the age of twenty-two months. In this instance, as in most others, when dentition is remarkably delayed, a dangerous and protracted disease in the alimentary canal occurred.

“Irregularities in the first set of teeth are rare in consequence of their small size. When they do occur, the deviation usually happens to the cuspidati, which are last projected, and may be diverted from their proper situation in different parts of the bony palate. A deficient number, or an entire absence of teeth, may take place. Borelle met with a woman who, at sixty years of age, had never had any teeth.‡

“About the seventh year after birth, the second or permanent set of teeth begin to make their appearance. Previously

\* See “A Practical Treatise on the Remittent Fever of Infants,” by J. M. Coley, p. 156.

† “Billard.”

‡ “Ibid.”



to this event the incisors are found loose, being supported principally by the gums, their roots having undergone more or less absorption. When they remain firm at this period, the permanent incisors appear either in front or behind them, being always secreted in new and distinct capsules. The jaws having by this time acquired a great increase of size, the secondary teeth are found larger and more numerous. After the incisors are brought into view, amounting, as in infancy, to four in each jaw, eight bicuspidates follow, and take the place of the primary molars; next eight molars shoot up some time from the tenth to the fourteenth year after birth; afterwards four cuspidati; and from the nineteenth to the twenty-ninth year, but usually at puberty, four wisdom teeth appear, one at each extremity of the jaws, and render the number of permanent teeth exactly thirty-two. These teeth, or four of the incisors or the canines, are sometimes wanting; and some instances are said to have occurred, where a third set of teeth has been cut at an advanced age.

“The gums of most of the permanent teeth are visible in the foetus behind and below the milk-teeth.\*

“I have in my possession a singular anatomical preparation, which I removed from the rectum of a woman about thirty years of age, who died of mortification of the omentum. It consists of a portion of the upper jaw of an extra-uterine foetus, containing two incisor teeth and a cuspidatus, whose crowns are complete, and whose roots are enclosed in their respective capsules. Adjoining the cuspidatus is perceptible a primary molar tooth, which has been displaced and inverted, and continues adherent to the periosteum of the canine tooth by means of its investing membrane, which assumes the shape, and appears to have performed the office of a gubernaculum, about half of its fang having been absorbed. The particulars of this extraordinary case are recorded in the ‘*Edinburgh Medical and Surgical Journal*,’ Vol. vi. p. 50.

“*Diseases of Dentition.*—The following remarks of Guersant respecting the vulgar and unfortunate prejudices prevailing on the subject of dentition, and its supposed influence in producing diseases with which it has no connection, are so appropriate, that I am induced to introduce them for the notice of my readers:—

“On attribue dans le monde la pulpart des maladies de l'enfance au travail de la dentition. La difficulté d'observer les maladies du premier âge, et le peu de connaissances positives que nous avons sur cette partie de la pathologie, ont contribué, à enraciner cette opinion: et ce préjugé, resultant de notre ignorance, est ensuite devenue populaire, commun, à tous les autres préjugés en médecine.”†

\* “*Cyclopedia of Practical Medicine.*” Art. Dentition.

† “*Dict. de Med.*” en 21 vol., t. 6. Art. Dentition, par M. Guersant.

"It is lamentable to notice the ignorance displayed by the profession, as well as the public, on this subject; every concomitant disease, the exact nature of which is not obvious to their apprehension, being attributed to the teeth. To enumerate all the complaints thus believed to be induced by dentition would be a waste of time.

"The diseases peculiar to dentition are such as arise from local inflammation. The rapid growth of the gums and alveolar processes, and the simultaneous activity of the dental capsules, require a corresponding supply of blood and nervous energy. Hence the flushings in the face, increased heat of the head, and cerebral excitement about that period. To this cause have been improperly ascribed those effusions of blood in the alveolar processes, which have been followed by destruction of the capsules and the alveoli. Two instances of this kind evidently occasioned by cold and accompanied by inflammation in the mucous coat of the alimentary canal, and a congested state of the liver, are related by Billard. In the first, an infant eighteen days old, was discovered an effusion of blackish fluid blood in three alveoli of the primary teeth. The incisive teeth and part of the germ, which was not ossified, floated free and detached in the effusion, which formed the tumour; the bony crowns of the teeth were softened, reddish, and almost macerated in the fluid. Some points of muguet were found at the inferior extremity of the œsophagus, red striæ traversed the surface of the stomach, and the mucous membrane at the end of the duodenum was thickened and tumefied. Near the valve of Bauhin six follicular plates, very red and much swollen, were met with; and the liver was gorged with blood.\* In the second case, which also proved fatal to an infant twenty-six days old, the tongue and roof of the mouth were so affected by muguet that the nurse was unable to suckle him, and he vomited his food directly after he had taken it. Great heat of the skin and thirst occurred every evening, and the muguet extended itself. The gums in both jaws then became swollen, and deglutition almost impossible. The swelling in the upper lip made rapid progress, and the face was œdematous. Violent cough and a purple ecchymosis supervened before death. On dividing the swelling on the gums, it was found to be occasioned by blackish grumous blood, in the midst of which floated the dental gums, which, totally detached, escaped with the blood that flowed from the tumour. The stomach was contracted and wrinkled, and its mucous coat thickened and intensely red. The liver was distended with blood, and all the abdominal venous system in a very remarkable state of congestion. The tongue was the seat of a distinct œdematose swelling.†

\* "*Traité des Maladies des Enfants*," p. 266.

† "*Traité des Maladies des Enfants*," p. 267, 268.



“These cases and dissections prove the co-existence of extensive disease in the stomach as well as the mouth, probably the result of exposure to cold at the latter end of autumn. As the attack commenced in each infant a few days after birth the process of dentition could have had no share in the cause of the disease. In short, effusion of blood into the alveoli, destruction of the processes, and exfoliation of the capsules of the teeth, cannot take place, except from external violence, or inflammation brought on by cold, or some constitutional derangement.

“When the milk-teeth are about to penetrate the gums, the absorbents remove the intervening substance, and thus, first one point of the apex of the tooth, and then another, is exposed to view. Sometimes the cuticle is so distended that inflammation supervenes, which, terminating in the effusion of serum or blood, detaches a portion of epidermis, which assumes the character of a small vesicle. Artificial aid is unnecessary, unless the symptoms of both local pain or constitutional irritation be present, when the inflamed or swollen gum should be divided with a crucial incision down to the presenting surface of the tooth.

“The principal diseases of the first set of teeth are caries and inflammation in the periosteal membranes, terminating in abscess, or what is commonly called *gum boil*. The first effect of inflammation in the periosteum is to excite pain, tenderness, and swelling in the gum adjacent to the tooth, and an effusion of fluid between the fang and its investing membrane, which is thus covered into a kind of cyst. Successive attacks of inflammation at length end in the formation of pus, which either bursts through the tumour in the gum, or may be artificially opened. In some cases after the abscess has burst or been opened, a fungus springs up from the diseased membrane lining the cavity. In other cases, the pressure of the abscess having produced absorption of a portion of the alveolar process at its lower part, it effuses its contents through the aperture thus formed, and the matter insinuates itself along the surface of the lower jaw, and forms an external tumour near its base. This tumour is at first hard and discoloured, but in the course of time it ultimately inflames, and bursting or being opened, leaves a puckering in the integument, which adhering to the bone, remains a permanent blemish. When the diseased tooth, which is the cause of the mishchief, is removed before external redness takes place, the tumour ultimately retires and leaves the skin unblemished.

“Children are subject to facial neuralgia from inflammation in the periosteal membranes of the teeth. This observes the same periodicity as it does in adults. What is called caries is a decay in the osseous part of the tooth, the nature of which has never been satisfactorily explained. It sometimes com-

mences externally, at other it begins under the enamel, which is afterwards broken off and exposes the cavity. By those who believe that the teeth retain some minute and invisible kind of vascularity after they are completely formed, which others deny, caries is supposed to be a species of ulceration in the bone; yet no exfoliation ever takes place, and nothing like granulation has ever been observed in the carious cavity. When human teeth which have been long extracted from dead bodies, and when those formerly made with the tusk of the hippopotamus, have been artificially fixed in the human mouth and exposed to its secretions, they are found to undergo the same decay and present the same carious cavities as those found naturally formed in the respective sockets. Hence we may presume that these carious cavities are the result of some chemical process; and this supposition is strengthened by the fact that the process of decay is suspended by excluding the saliva and the external air by the introduction of pure gold, which is insoluble by the salivary secretion.

“When the digestive organs are so deranged that the supply of chyle is interrupted, and a species of scurvy is the result, the gums are apt to bleed from the slightest touch; and ulcerations also occur under such circumstances in the gums, where they are connected with the teeth.

“During the primary dentition it is not uncommon for the bowels to become constipated. This proceeds from the determination of blood towards the alveolar processes, and the consequent enervation of the alimentary canal. It is a most unfortunate mistake, into which medical men as well as the public are apt to fall to attribute a relaxed state of the bowels to dentition. It is impossible upon any sound pathological theory, to attribute either dysentery or diarrhoea to inflamed gums or alveoli; and in practice this gratuitous theory is followed often by the most unhappy and fatal results, particularly when the popular and routine custom of administering opium with astringents is adopted, or reliance is placed on needless lancing of the gums, and the muco-intestinal inflammation is neglected and unrelieved by appropriate remedies.

“*Treatment.*—Those inflammations of the gums, accompanied with muguet, which have been described by Billard, should be treated immediately by the application of a leech or two to the inflamed parts; and the lotion I have recommended, when speaking of muguet, should be regularly used. The congested state of the vessels of the stomach and liver will be most appropriately treated by small doses of castor oil, or rhubarb and magnesia. It must, however, be observed, that the only chance of rescuing the patient at so tender an age will be afforded the physician at the very commencement of so severe a disease.

“The inflammation in the periosteal membrane of the tooth



is best treated by the application of a leech to the tumefied gum, which will generally subdue it at once, and prevent the suppurative process. The most safe and pleasant mode of introducing the leech into the mouth, is to pass a needle and thread transversely through the animal, which should be afterwards placed within a glass tube. When suppuration takes place, the abscess may either be left to burst spontaneously, or it may be opened at a proper period with a lancet. As soon as the tenderness in the gum has subsided, the tooth should be extracted, as the patient cannot expect to enjoy any long immunity from a repetition of the abscess. Those cases which terminate in fungus, or in the formation of a tumour at the base of the jaw, should be treated in the same manner; as no other remedy than the extraction of the tooth can be relied upon to cure the fungus, or to prevent the disagreeable and lasting deformity, which an abscess connected with a diseased tooth would otherwise inflict on the face of the child.

“The only permanent cure for tooth-ache, occasioned by a decay in the tooth, is extraction. As the first set of teeth are only temporary, the process of introducing a round file, and removing the decayed surface, and filling up the cavity with gold, would be superfluous for a child. The front teeth ought to be extracted with a pair of small forceps, and the grinders by the key instrument, or by an instrument lately introduced by the dentists, which acts in the manner of a lever, with the assistance of a strong and practised hand. In using the forceps, the dentist should make use first of a slight rotatory motion, to separate the tooth from the alveolar process, and then extract it; and when the key instrument is employed, he should apply the left fore-finger on the middle of the convex surface of the claw of the instrument, to prevent its slipping while he is extracting the tooth. For this purpose, the claw will be found greatly improved by the addition of a small stud at the part above-mentioned; and with the key instrument, thus improved, the smallest stump may be removed with facility, provided the gum has been previously lanced to a sufficient depth, and with much more ease and despatch than by the barbarous instrument, called a punch, which ought long ago to have been exploded.

“The front permanent teeth are subject to irregularity, and require attention from seven to eighteen years of age. When the incisors are forced out of their proper situations by any of the temporary teeth, the latter should be removed; and when the cuspidati project, and endanger the upper lip at any time under eighteen years, the adjoining bicuspis should be extracted. After the patient is above eighteen, the irregular canine tooth should be removed, as there is no chance beyond that age of the errant cuspidatus occupying the place of a bicuspis the growth of the jaw being then complete.

“A fungous and bleeding condition of the gums connected with scurvy, is only to be cured by proper food and attention to the digestive organs. The food should consist of fresh meat and vegetables, and the child should take a mixture composed of diluted sulphuric acid and disulphate of quina, drinking lemonade through the day as a beverage. The bowels should be relaxed every third day with chloride of mercury and jalap. A severe case of this kind, with other alarming symptoms of scurvy, as vesications and ulcers in different parts of the body, occurred in my practice lately in a boy, who had been at a cheap school, where the diet consisted almost entirely of red herrings and other salt fish. The ulceration in the gums may be treated with a lotion composed of three or four grains of nitrate of silver to the ounce of water.

“The most proper remedy for facial neuralgia, before the first set of teeth have fallen out, when the teeth are decayed, is extraction. When the disease occurs afterwards, it should be treated as it is in adults, by means of disulphate of quina, which may be given in the dose of one grain three times a day, and, should that fail, by five minims of the solution of the arsenite of potash once in six hours. It must be observed, however, that when there exists any chronic inflammation or abscess in the periosteum of the tooth, the only effectual remedy is the entire removal of the tooth.

“Those cases in which constipation is present and obstinately continued by the process of dentition, must be treated as long as that condition prevails, by a tea-spoonful of castor oil, or a small dose of salts and senna, every morning. No fears need be entertained respecting the habit of giving repeated aperients, while dentition is proceeding, as the bowels assume their natural functions, as soon as the teeth are developed. When the costiveness is unusually obstinate, a dose of chloride of mercury and jalap must be given every third or fourth morning.”

We would particularly recommend to the attention of practitioners the author's account of “Dyphtherite, or Membranous Sore Throat,” of which several examples have been met with lately in this city.

“It begins with inflammation of the mucous membrane of the soft palate, tonsils, and pharynx, terminating in the secretion of a false membrane, *without any ulceration or destruction of the true skin*. As the inflammation advances, it is apt to extend to the larynx, and to produce the symptoms and fatal results of croup. In one form of the disease, gangrene or sloughing of the inflamed parts takes place, particularly in children of feeble constitution. The attack begins with a



little fever, attended with a slight difficulty in swallowing. On inspecting the throat the tonsils are perceived to be swollen, and small portions of white or yellowish lymph may be seen, resembling muguet, on different parts of the soft palate and pharynx. After a short time these deposits of lymph assume a grey colour, and acquire an offensive odour; and a copious discharge of saliva flows from the corners of the mouth. At this period the cervical glands become inflamed and swollen. At length the grey lymph, constituting the false membrane, either falls off in a mass, and is ejected through the mouth, or it is separated in fragments and discharged by degrees, and is often reproduced."

"In the more malignant cases, the disease extends into the air-passages, producing symptoms of laryngeal and tracheal inflammation. First hoarseness is observed; then a harsh, suffocating cough, accompanied with a croupy sound and an anxious expression, followed by a pale, cadaverous countenance, with the eyes sunk in their sockets; hurried and feeble pulse, cold skin; and terminating, when unrelieved, in irresistible stupor, a purple colour of the lips, face, and extremities, and speedy death. When the bronchial tubes are visited by this disease, the cough becomes more frequent, the breathing more rapid, and accompanied with a mucous or rattling sound, and the patient sometimes expectorates shreds or tubular portions of lymph presenting a membranous appearance."

"*Treatment.*—As the danger of this disease is in proportion to the nature and extent of the false membrane, our principal reliance must be placed on local remedies. Of these the most effectual are hydrochloric and nitric acids, either of which may be conveyed to the diseased parts by means of sponge or linen rag fastened to a piece of cane or whalebone. The acid should be rubbed or pressed firmly on the surface of the parts affected, so as to insure its contact with the inflamed membrane and the detachment of the lymph. In very slight cases resembling muguet, a lotion composed of two grains of bichloride of mercury, or ten to twenty of nitrate of silver, to an ounce of distilled water, will be found sufficient to separate the excretion and remove the subjacent inflammation, the progress of which must be carefully watched and promptly arrested. The operation of these powerful stimuli on the congested and inflamed surface is that of producing contraction, and restoring the natural action of the minute vessels."

When all other means fail laryngotomy has sometimes been resorted to with success. A method of operating, quite novel, is recommended, said to have been invented by Mr. Hilton, and of which the description is extracted from Guy's Hospital reports. It is as follows:

“In this operation I used a curved trochar and canula, the canula being oval from side to side, and the trochar lancet-shaped, much flattened above and below, and cutting at its point and edges. This instrument may be passed through the crico-thyroid membrane into the larynx, or through the trachea with the greatest facility, the larynx being held steady by the surgeon's left hand: indeed, it is scarcely necessary to divide the skin with a lancet before attempting its introduction; yet, with the circumstances permitting, I think that a good previous step. The forms of the cutting instrument and the canula are so adapted that the canula presses upon the whole of the cut surface, and thus prevents any internal bleeding; and, further, as regards, laryngotomy through the crico-thyroid membrane, the oval outline of the canula is the form best adapted to the form of the space between the cartilages. It is said some persons cannot bear a canula in the larynx or trachea. I apprehend that when this inconvenience arises, it occurs from the end of the canula touching the posterior part of the larynx or trachea, a point easily determined at the time by knowing the length of the canula, and passing a probe to its then internal extremity. This contact it is difficult to avoid with a straight or slightly curved canula: and such a one is also very liable to be blown out of the larynx by the patient coughing. With the intention of avoiding these inconveniences, it is better to use a trochar and canula very much curved, which, when introduced, hooks itself into the larynx or trachea, and is very secure in its position, with its internal aperture presenting itself completely to the centre, and in the axis of the trachea, in which it is placed, and so offering the greatest facility to the passage of the air during respiration and for the exit of mucus.

“This operation with the trochar and canula may be done well, and almost in an instant, by any medical man,—is not in itself in any way dangerous,—not painful,—and almost invariably gives immediate relief, imposing very little inconvenience on the patient at the time or subsequently: and when the necessity for the artificial opening no longer exists, the aperture closes with facility, and leaves but little cicatrix.”

It is obvious that this operation would only be admissible where no foreign substance or false membrane required to be extracted.

From the remarks on flatulence we extract the following prescription for that troublesome affection.

“R—Magnesia, 3ss.  
Sachari albi, 3s.  
Olei Carui, gtt. j.



Spiritûs Ammon foetid. 3ss.

Tinct. Sennæ, 3ss.

Liquoris calcis q. s. ut fiant ʒjss.

“Half a tea-spoonful, or a tea-spoonful, to be taken when the flatulence is troublesome.”

We will pass by the subjects of remittent fever, cholera, and the diseases of the stomach and bowels, since our object is rather to enrich our pages with valuable facts, than to point out imperfections in the work. It is quite obvious that the remittent fever, prevalent to a great extent in these western states, and common to children and adults, is entirely unknown to our author. The same is also true to nearly the same extent, in regard to cholera infantum, which is unknown in the middle and northern parts of Europe.

From the chapter on Nasal Catarrh we take the following which, “if true,” may be useful to the horse as well as the physician.

“The indication we have to fulfil, is to restore tone to the mucous membrane, which may be affected by the following mixture:—

“R.—Cupri Sulphatis, gr. iv.

Quinæ Disulphatus, gr. vi.

Acidi Sulph., dil. m. iij.

Aquæ Distilatæ, ʒiij.

M.—Capiat cochl. i. minimum bis die.

“Should the discharge not be diminished within a few days, the dose of the sulphate of copper must be increased gradually until slight sickness is produced. The *modus operandi* of the copper, to which I attribute the principal benefit of this mixture, is that of restraining the mucous secretion from the follicles of the stomach. By continuous sympathy, this astringent operation of the medicine is extended to the Schneiderean membrane, which rapidly reduces its mucous and purulent discharges. This effect of sulphate of copper on the Schneiderean membrane of the horse, is still more rapid and remarkable; as any one may observe by exhibiting one drachm every day to that animal, afflicted with the most chronic inflammation and muco-purulent discharge from the nostrils, uncombined with glanders. He will find in the course of a week, the mucous membrane of the nose, lose its dark red, inflamed appearance, and resume its natural grey colour, which favorable change will be accompanied with a total cessation of the morbid discharge.”

Omitting a great number of interesting articles we extract the following on "spasm of the glottis," or "thymic asthma," with the remark that the view here taken is the one now almost universally adopted.

*"Cerebral Croup, Laryngismus Stridulus, or Spasm of the Glottis.*—This disease was minutely described by Dr. John Clark, in his Commentaries on the Diseases of Children; and his description is so accurate, that I am induced to extract it verbatim:—

"This convulsive affection occurs by paroxysms, with longer or shorter intervals between them, and of longer or shorter duration in different cases, and in the same case at different times.

"It consists in a peculiar mode of respiration, which it is difficult accurately to describe.

"The child having had no apparent warning, is suddenly seized with a spasmodic inspiration, consisting of distinct attempts to fill the chest, between each of which a squeaking noise is often made; the eyes stare, and the child is evidently in great distress; the face and the extremities, if the paroxysm continue long, become purple, the head is thrown backwards, and the spine is often bent, as in opisthotonos: at length a strong respiration takes place, a fit of crying generally succeeds, and the child, evidently much exhausted, often falls asleep.

"In one of these attacks a child sometimes, but not frequently, dies.

"They usually occur many times in the course of the day and are often brought on by straining, by exercise, and by fretting, and sometimes they come on from no apparent cause.

"They very commonly take place after a full meal, and they often occur immediately upon waking from sleep, though before the time of waking the child had been lying in a most tranquil state. As the breathing is affected by these paroxysms, the complaint is generally referred to the organs of respiration, and it has been sometimes called chronic croup, and is altogether of a convulsive character, arising from the same causes, and is relieved by the same remedies as other convulsive affections."

"Accompanying these symptoms, a bending of the toes downwards, clenching of the fists, and the insertion of the thumbs into the palms of the hands, and bending the fingers upon them, is sometimes found, not only during the paroxysm but at other times.

"Clenching the fist with the thumb inserted into the palm of the hand, often exists for a long time in children without being much observed, yet it is always to be considered as an



unfavorable symptom, and frequently is a forerunner of convulsive disorder, being itself a spasmodic affection.\*

“This disease seldom appears before the third month, or after the third year. This may be accounted for partly by the gradual increase in the aperture of the glottis, which continues to proceed until puberty. It is a frequent consequence of dysentery, and concomitant with marasmus, especially in children who are dry nursed. Dr. Clarke, in his above description of the disease, has omitted to mention a swelling sometimes migratory and sometimes permanent, on the back of the hand or foot, and sometimes on the face, which commences rather suddenly after one of the fits in the advanced stage of the complaint. The swelling consists of serum, which is effused into the cellular membrane, and which appears to me to result from the temporary plethora and debility in the extreme vessels, occasioned by the obstructed circulation in the lungs during the paroxysm. This swelling is of the same nature as that which appears suddenly on the arms; the hands, the feet, and other parts of the body, and which migrates from one place to another, in patients advanced in life, and who have been reduced in strength, and been suffering a long time with repeated paroxysms of alarming obstruction in the pulmonary circulation, arising from fatal disease in the heart and pericardium.

“Various opinions have been formed respecting the nature and cause of this alarming disease. Dr. Clarke, and most other writers, have considered it as a spasm of the glottis. Dr. Hue Ley believed it to arise from paralysis of the recurrent nerve, occasioned by the pressure of enlarged cervical glands; and it is the opinion of Kopp, Hirsch, and most German authors, that it is due to the enlargement of the thymus gland. On the other hand, Caspari, Pagenstecher, Roesch, Hackman, and most British physicians, as well as Dr. Clark, have considered the disease as purely spasmodic. As the disease proceeds, it generally terminates in epileptic convulsions, especially in delicate infants; and it is not uncommon for the child to expire during one of these attacks. On this account Dr. Clarke supposed that in every case the brain is at the time organically affected either directly or indirectly. He believed this organ to be directly affected when the spasm arises from perenitis or hydrocephalus; and, indirectly, when it proceeds from an overloaded stomach indigestion, inflammation in the lungs or pericardium, from the pressure of glanular swellings, or when it occurs during the progress of infantile remittent fever or marasmus. In proof of this opinion, Dr. Clark states that he found in one patient after death, a collection of purulent matter in the pericardium, and in another fullness of the vessels and water in the ventricles of

\* Commentaries on the Diseases of Children, by John Clarke, Esq., M.D., p. 86—89.

the brain. In addition to some cerebral affection, Kyll attributes the spasm of the glotts to an inflammation of the cervical portion of the medulla spinalis, and to an alteration in the structure of the cervical and thoracic glands, which compress the pneumogastric nerves; and, according to Dr. Marshall Hall, it may originate in inflammation of the gums, disease of the brain, or derangement in the alimentary canal. There is no doubt the cause of this disease is occasionally traceable to one of the nervous centres. That cases, however, will be found to originate in the last cause Dr. M. Hall has enumerated, we have abundant proof every day; and I hope to be able to show that it is almost invariably the cause of the disease. In a fatal case, which occurred in my own family, the only morbid appearance found on dissection was a large exostosis growing on the inner surface of the occiput, which compressed the cerebellum and produced chronic inflammation of the dura mater. In this patient no disease was discoverable either in the cervical or thoracic glands. In another fatal case, also in my own family, in which the spasm was almost continual before death, the only morbid appearance found on examination was inflammation in the left phrenic nerve, as it passed over the pericardium. With respect to dentition, I have never found the disease in any manner connected with that process. In one patient the gums had been lanced most unmercifully, down to the alveolar processes, by the practitioner in attendance, and salivation had been induced without any relief having been afforded; and as the case is full of interest, and tends to confirm the view I have long taken of the general cause of spasm of the glottis, I will presently relate the particulars of it. There is no doubt that certain infants are liable to this disease from various causes; but most of the cases, except the two fatal ones I have mentioned, which have occurred in my practice, have arisen from an excited state of the laryngeal nerves, produced by the pressure of undigested food in the stomach or duodenum, or some portion of the other small intestines. In these cases, when the stomach has been the original seat of the disease, the paroxysm has always occurred after a meal; when the duodenum or the other small intestines have been its seat, the fit has not taken place in less than an hour after taking food, when it has always been immediately followed by epilepsy. The morbid condition of the stomach has been preceded by imperfectly cured remittent fever, or by a neglected state of the bowels; and on examining the intestinal discharges, after the operation of opening medicine, they have been found undigested, no alteration having been made in the appearance of the food during its passage along the alimentary tube. Hence, when panada has been the food given to the child, the evacuations will be found to consist of the bread with which it was made, per-



fectly unaltered. In these cases, I apprehend there is a deficiency of gastric juice and mucus in the stomach, which is from that cause rendered irritable by the presence of food, for which it is not properly prepared; and when the crude aliment is propelled into the duodenum, and the natural secretions of that bowel, and the discharges from the liver and pancreas are either absent or defective, it appears that its mucous coat is impatient of its contents, and the nerves with which it is supplied excite the distant muscles of the larynx into spasm, on the same principle that the morbid secretions in cholera, irritating the mucous surface lower down the canal, excite the muscles of the legs and abdomen into spasmodic action; and the successful practice of Hackmann, in the administration of musk and oxide of zinc in chronic cases, appears to illustrate this analogy. As soon as the digested food has passed from a healthy stomach into the duodenum, the pancreas and the biliary ducts pour out their tributary streams, which unite with the chyme and the mucous secretion of that intestine effused from its numerous follicles. When the concurrence of these secretions is prevented by any cause, the symptoms which have occurred to my observation, when I had reason to suppose the food had arrived at the duodenum, have led me to believe that the inner surface of that intestine had in such cases acquired a morbid sensibility, which had deranged the healthy functions of the *paria vaga* and the nervous centres.

“As far back as the year 1723, Richa,\* and 1726, Verduis,† described this disease, and referred its cause to hypertrophy of the thymus gland. In 1830, Kopp‡ published a memoir on this subject, and as he also considered the thymus gland to be in fault, the affection was called after him, “the thymic asthma of Kopp.” Frank also asserted that anatomists often found the thymus and bronchial glands tumefied. In 1836, Dr. Hugh Lee, to whom I have before referred, published an essay on this disease, which he denominated laryngismus sibilus. He adopted the same view with respect to the pressure on the laryngeal nerves in every instance; and he endeavoured to account for the crowing inspiration, by supposing that the pressure of the enlarged cervical glands, &c., produced paralysis in the nerves in question. Dr. S. Merriam also appears to have entertained a belief that the disease is occasioned by the pressure of glandular swellings.|| On the contrary, Dr. Kerr§ denies that pressure on the nerves, or dentition, has any effect in producing the complaint; and Dr. Marshall Hall, one of the best physiologists of the day, thus expresses himself:—

\* “*Constitutiones Epidemicæ Taurinenses.*” † “*Dissertatio de Asthmate Pnerorum.*”

‡ “*Denkwürdigkeiten in der Acteylichen Praxis.*”

|| “*Underwood on the Diseases of Children,*” ninth edition, p. 142.

§ “*Edinburgh Med. and Surg. Journal,*” vol. lviii., pp. 334 to 335.

“It has been recently attempted to found the pathology of this interesting disease upon observations such as that adduced by Dr. Merriman, but I think unsuccessfully.

“In the first place, as far as my memory and judgement serve me, the cases adduced to support this view are not cases in point, but, in reality, cases of other diseases.

“Secondly, supposing pressure upon the par vagum to exist, it would induce totally different phenomena from those actually observed in this disease, and it would not explain the *series* of phenomena which actually occur in it; for,

“1. Such pressure would induce simple *paralysis*.

“This would, in the first place, affect the recurrent nerve and the dilator muscles of the larynx: it would induce a partial but *constant* closure of that orifice,—a permanent state of dyspnoea, such as occurred in the experiments of Legallois, or such as is observed to be excited in horses affected with the ‘*cornage*’ or *roaring*.

“Secondly, it would induce paralysis of the inferior portion of the pneumogastric nerve, with congestion in the lung or lungs, and the well known effects upon the stomach of the division of this nerve.

“2. The disease in question, on the contrary, variously designated ‘*peculiar convulsion*,’ ‘*spasm of the glottis*,’ &c., &c., is obviously a *part* of a more general *spasmodic* affection, and frequently induced, most frequently comes on in the midst of the first *sleep*, in the most *sudden* manner, receding equally *suddenly*, to return, perhaps, as before, after various intervals of days, weeks, or even months. Very unlike paralysis, from *any* cause!

“3. It not unfrequently involves, or accompanies, as I have said, *other* affections, indisputably *spasmodic*, as distortion of the face, strabismus, contraction of the thumbs to the palms of the hands; of the wrists, feet, toes; general convulsions! sudden dissolution! a series of phenomena totally unallied to paralysis.

“4. Indeed, the larynx is sometimes absolutely *closed*, an effect which *paralysis* of the recurrent nerve, and of its dilator muscles, *cannot* effect.

“5. Paralysis, from the pressure of diseased glands would be a far *less curable* disease, a far *less variable* disease, a far *less suddenly fatal* disease, than the croup-like convulsion.

“Thirdly. Almost all recent cases are at once relieved by attention to three or four things, viz.:—the state, 1, of the *teeth*; 2, of the *diet*; 3, of the *bowels*; and 4, by change of *air*. They are as obviously produced or reproduced by the agency of errors in one or more of them.

“Fourthly. In fact, the croup like convulsion is a *spasmodic* disease, excited by causes situated in the nervous centres, or eccentrically from them. In a case of spina bifida, a croupy



and convulsive inspiration was produced by gentle pressure on the spinal tumour. In cases from teething, the attack has been produced and removed many times, by teething, and by freely *lancing* the teeth, by crudities, and by emetics and purgatives; by change of air, &c.

“Fifthly. There is a series of facts which prove the connexion of this disease with other forms of convulsions in children, and with epilepsy in the adult subject.

“Sixthly. In protracted cases, congestion and effusion within the head occur, as *effects* of this disease.

“Lastly. Innumerable cases of undoubted croup-like convulsions have occurred, in which no enlarged glands would be detected in any part of the course of the pneumogastric nerve.”

“*Treatment.*—When the patient is florid and plethoric, especially when general convulsions have followed the attack, and the head is hot, a few leeches must be applied to one of the temples, and a purging dose of chloride of mercury and jalap should be given every second or third day, according to the severity of the paroxysms. The proper proportion of the chloride will be one grain to four of jalap for an infant one year old, the dose being double that strength for the second, and treble for the third year. The evacuations must be examined, when they will be found to contain undigested food, and probably a quantity of highly offensive, dark coloured mucus. Although I have never seen any benefit from lancing the gums, yet should they be prominent and inflamed, from the pressure of the subjacent deciduous teeth, they may be lanced. It must, however, be borne in mind, that when the gums are tumefied and inflamed, the relief to be expected from their incision will be diminished in proportion as the child is advanced in age. In performing this operation, all that is required will be to divide the gums crucially down to the teeth, which should always be distinctly perceived by the touch to be near the surface previously to the operation. If the child is dry-nursed, a wet-nurse should be provided; or, if this cannot be done, the food should consist only of barley-water, or thin gruel prepared from grits, and passed through a fine sieve. When the child is three or four month old, a wine-glassful of this food will be sufficient about once in two hours during the day. No animal food, nor rusks, nor bread, nor milk, should be allowed such an infant, until all its primary incisive teeth have advanced through the gums, when, if the disease has subsided, he may take some of those articles of diet. He should be taken into the fresh air every fine day, and not confined to a hot apartment. His head must be kept cool, and if he has not sufficient hair to dispense with his cap, one as thin as possible should be worn. I have often known severe paroxysms brought on by a heated room, and by too

much clothing about the head. Especial care must be taken to avoid mental pain or excitement, as the attacks of croupy inspiration are very apt to be induced by sudden passion.

“The opposite variety of the disease,—that which appears in delicate, pale, and sickly infants—never requires bleeding. The powder, composed of chloride of mercury and jalap, must be administered every second or third morning, and on the intermediate mornings a tea-spoonful of castor oil. This plan must be pursued until the stools become natural in smell and appearance: for as long as they consist of crude, undigested materials, or present the vicious, offensive mucous secretions peculiar to this disease, which I have described as resembling undiluted white lead paint, the fits of crowing inspiration will not fail, from time to time, to occur. So long, too, as these alvine discharges continue, emaciation will proceed, and the muscles will remain soft and flaccid. Such patients, when the state of the intestinal secretions and discharges are neglected, and appropriate treatment is not adopted, soon become afflicted with marasmus; the paroxysms increase in frequency and severity, and epilepsy following every attack, in a short time exhausts, and ultimately destroys life. These feeble and pallid infants receive no relief from lancing of the gums, nor, as I have said before, from other local bleedings; on the contrary each successive loss of blood increases the malady; and, when the seat of the disease and the proper treatment are overlooked, such infants become miserable objects, having one or both hands and feet hanging down, and distorted with a continued contraction of the flexor muscles; anxious, irritable, and appearing every moment to expect a fit, which each time threatens to destroy life. As soon as the morbid secretion of mucus has disappeared, the chloride of mercury and jalap must be discontinued, and the castor oil should be regularly repeated, either every morning, or every second morning, to obviate costiveness, and thereby prevent a recurrence of the attacks. At this period, great benefit will be derived from pure air; and, if the child should live in the town, he should be removed into a warm and dry situation in the country. The diet suitable for this variety will consist of barley-water or thin gruel, strained, till the first eight front teeth have escaped through the gums, when he may be allowed, with advantage, mutton or veal broth, and the yolk of an egg, boiled two minutes, once every day. In the feeble children subject to this disease the process of dentition begins prematurely; and this is one cause of the appearance of the symptoms. The determination or relatively increased flow of blood to the alveolar processes and dental capsules, necessary for the development of the teeth and the deposit of enamel, being, in these weak and irritable children, an exhausting effort of the vital principle,



which deprives the alimentary canal of its due and accustomed share of nervous energy, the secretions in the chylopoietic viscera and the peristaltic action of the stomach and intestines are diminished, and indigestion and costiveness are the result. The vital processes of chyliification and sanguinification are thus diminished in girls of feeble constitution, during the development of the ovaries preparatory to the process of menstruation. In these the excitement of the reproductive organs, necessary for their rapid growth and maturity at the destined period alluded to, attracts to those organs a temporary excess of the vital principle at the expense of the organs of supply; in consequence of which the natural action of the bowels is retarded, the various secretions necessary for nutrition are interrupted, the blood is ultimately deprived of its due portion of fibrine and red globules, and the condition of the sanguiferous circulation called anæmia, is established. The same principle will be found to operate in pathology, as well as in the natural development of particular organs. In all those varieties of mania, which are of a remittent character and in which a connection may be traced with the digestive organs, we find the bowels in so torpid a state, as to require the frequent or constant use of purgative medicines. So, also, in some, especially scrofulous inflammations, to which the eye is subject, we find, during the continuance of the local excitement, such a torpid state of the alimentary canal, as requires a constant administration of purgatives.

“In some scrofulous children, I apprehend a state of chronic inflammation in the muciparous glands and villous tunic of the small intestines, similar to what takes place in the mucous coat of the eye in purulent ophthalmia, occurs, and is the source of the copious discharge of muco-purulent matter, which I have observed in some cases of disease, accompanied with spasm of the glottis. Such cases require the same persevering use of castor oil, or other purgative, as I have recommended; and, when curable, do not admit of cure or relief from any other treatment. The stimulus of purgative medicines, in such cases, carries off these morbid secretions, and, at the same time, excites the secretory vessels into more healthy action.”

“*Hooping-Cough, or Pertussis.*—This is one of those diseases which on account of its frequent occurrence, is unfortunately too often left to the exclusive management of nurses. The consequence is, that many children annually perish from bronchial or pulmonary inflammation, excited by neglect or improper treatment, or remain sufferers through after-life from asthma, generated by dilatation of the bronchial ramifications, or by vesicular emphysema.

“Most English physicians consider hooping-cough to be

contagious as well as epidemical. French medical writers believe it to be epidemical. It rarely attacks young infants and old persons, although no age is exempt from it. One of my patients, who was only three months old when the disease began, died from convulsions, excited by the cough, within fourteen days. Pertussis attacks the individual only once in his life, commencing in the autumnal, winter, or vernal months, and usually subsiding during summer. It has two principal stages, the Catarrhal, and the Convulsive, or Spasmodic; and some writers add to this the stage of decline. The first stage commences in some patients as a common catarrh, with a frequent, tickling cough, and slight fever; in others, with acute laryngitis, or croup. This stage continues from a week to a fortnight, and is succeeded rather abruptly by the second, which is denoted by the characteristic cough, whence the disease takes its name. This peculiar cough consists of successive, involuntary suffocating expulsions of air from the air-passages, succeeded by a long and sonorous inspiration. These paroxysms of convulsive coughing are often so violent, as to occasion epilepsy, or effusion of blood beneath the conjunctival membrane of the eye, or from the nose or ears. The patient, under these circumstances, becomes almost black in the face, and feels a sense of approaching suffocation, until inspiration returns. In severe cases, several fits of convulsive coughing occur in succession, until the child is quite exhausted, and almost senseless. In most cases, when the mucous membrane of the minute ramifications of the bronchi, or the pulmonary air-cells are the seat of the specific inflammation, the stomach is acted upon mechanically by the convulsive contraction of the diaphragm and the abdominal muscles, which compel it involuntarily to discharge its contents, together with those of the bronchial passages. As a proof that this process takes place without previous sickness, or gastric derangement, the patient, immediately after the fit of coughing is over, feels hungry, and calls for food. In all cases, the approach of the paroxysms excites in the patient a marked apprehension of impending distress, and instinctively propels him to secure himself from falling by seizing hold of a table, or some other firm support, or by attaching himself to his nurse's dress. At first, little or no expectoration occurs, but as the second stage advances, either viscid mucus, or pus is expelled, and terminates the paroxysm. The period at which the purulent secretion commences, is three weeks after the first appearance of the disease, at which time a quotidian or regular evening paroxysm of fever, of the nature of evening hectic fever, symptomatic of the purulent secretion, is discovered. When the patient is carelessly exposed to a cold atmosphere, bronchitis, pneumonia, or pleuro-pneumonia, is superadded to the disease, and protracts its duration; and



these complications are associated with cerebral convulsions in plethoric children, who have large heads. When the inflammation attacks the bronchial ramifications, and much mucous secretion follows, they are liable to become dilated, and thus to increase the misery of the patient, both during the disease and after its termination. During pneumonia, also, vesicular or interlobular emphysema may arise, and add to his distress; the former leaving permanent dyspnoea, and the latter endangering infiltration of air through the mediastinum into the cellular membrane of the face, neck, or chest. The violence of the cough may also produce rupture of the capillary vessels of the eyelids and upper lip, greatly disfiguring the patient. In the decline of hooping-cough, the latent disordered state of the alimentary canal, discovers itself in the form of remittent fever in delicate infants, accompanied with emaciation, and sometimes with spasm of the glottis; and this secondary fever aggravates and prolongs the duration of the original disease. During the catarrhal period of hooping-cough in infants and young children, the mucous membrane of the bowels is almost always affected concurrently with slight dysentery, which in the former is erroneously attributed to dentition, and in the latter is overlooked, in consequence of the cough attracting predominant exclusive attention. For a more full explanation of my views, respecting the nature and origin of remittent fever and spasm of the glottis, the reader is referred to the chapters on those diseases. It must, however, be observed, that when the latter disease is connected with epilepsy, there will be reason to suspect the consecutive attack of some cerebral, or, more probably, cerebellous congestion, or inflammation. In scrofulous children, the second stage of hooping-cough is sometimes accompanied with an intense heat and dryness of the skin, alternating with chilliness, which ultimately terminates in hectic fever, and the development of tubercular disease in the lungs.

“It is needless for me to enumerate all the various theories which have been invented to explain the origin and nature of hooping-cough. It appears to me to be nothing more than a bronchial catarrh, of a specific character, which is modified by the treatment and the constitution of the patient; and my observation of, and extensive experience in, the treatment of the disease, induce me to concur with Billard, and other French writers, in considering it to be an epidemic and not a contagious disease. As I before remarked, the hooping-cough begins in some children with inflammation of the larynx. This gradually descends the trachea, until it reaches the bronchi, at the bifurcation of which is seated the most sensitive part of the air-passages. The same process takes place when the disease commences as common catarrh. As soon as the specific inflammation reaches this irritable part, the peculiar

running, suffocating cough is observable, and every subsequent exposure to cold increases, extends, and prolongs the disease. It is the opinion of Dr. Copland, that hooping-cough in the simple form, is altogether nervous, and that in uncomplicated cases, the nervous affection never proceeds beyond irritation.\* Dr. Webster also believes, that the symptoms depend upon inflammatory irritation in the brain or of its membranes;† and Leroy,‡ Boisseau, Otto,|| and Begin,§ have also observed the frequent connection of cerebral disease with hooping-cough from the beginning of the attack, but they by no means admit that the latter is dependant on the cerebral affection. If the cough were only nervous, we should expect to see it terminate, as the hysterical and other nervous coughs, without expectoration, and without the peculiar, shrill inspiration. In hooping-cough, however simple, we invariably find the patient expectorate either viscid mucus or pus, and we know that in simple, chronic laryngeal inflammation, the cough is followed by the discharge of a starch-like inspissated mucus. The post-mortem appearances consist of increased vascularity, or actual inflammation of the mucous membrane of the air-passages, extending even to the pulmonary air-cells.

“On examination after death, the usual morbid appearance is inflammation of the mucous membrane. The lungs collapse imperfectly, and when cut into, an abundance of frothy and puriform mucous exudes from the bronchi and air-cells. Increased solidity of the lung has often been found, and by some it is said to be constantly observable. When it does occur, it would appear that the inflammation had extended from the mucous membrane to the substance of the lung, or attacked both its textures.’¶ These morbid appearances are accounted for by Dr. Copland in the following manner:—

“The impression made by the causes is followed by the lesion of the respiratory nerves, particularly the nervus vagus; and, owing to this lesion, the mucous surfaces they supply, frequently experience consecutive changes, as respects the circulation, exhalation, and secretion. Hence result vascular determination and augmented secretion, attended by irritation of the glottis, epiglottis, pharynx and air-tubes, inducing convulsive action, which supervenes the more readily, as the disease is not only essentially nervous in its nature, but often becoming consecutively irritative, or inflammatory; this last characteristic being only an occasional complication, occurring from predisposition, habit of body, epidemic influence or fortuitous causes favourable to its development.’\*\*

“In opposition to this theory it may be observed, first, that

\* “Dict. of Pract. Med.” part v., p. 242. † “Med. and Phys. Journal,” Dec. 1822.

‡ “Med. Maternelle,” Paris, 1803. || “Nye Hygæa,” Aug., 1824.

§ “Traité de Therapeutique,” &c., tom. ii., 1825.

¶ Dr. C. Johnson, “Cyclop. of Practical Med.,” vol ii., p. 430.

\*\* Loco citato, p. 243.



when the cough is slight, as in most adults, no concomitant cerebral symptom is present; secondly, that after an attack of spasm of the glottis, which is now acknowledged is produced by the excited action of the pneumogastric nerve, we can neither discover any expectoration during life, nor laryngeal, tracheal, or bronchial inflammation after death; thirdly, that the disease always commences with inflammation in the bronchial or some other portion in the mucous membrane lining the air passages, as other epidemic catarrhs; and, fourthly, that the symptoms of cerebral or cerebellous disease never unfold themselves until the second stage, denoted by the spasmodic cough, has established itself. Hence it appears to me, that the brain and cerebellum are affected in a secondary manner by the temporary obstruction in the pulmonary circulation occurring during the paroxysms of convulsive cough, and the impediment to the return of the venous blood from the brain and consequent cerebral congestion. Adopting this view of the pathology of whooping-cough, it will be found that its treatment may be facilitated, its duration limited, and its severity and danger greatly diminished by the practice which I have long adopted, and am about to recommend.

“*Treatment.*—As soon as the disease is discovered to be whooping-cough, the patient must be confined day and night to a temperature of sixty-five degrees of Fahrenheit’s thermometer. This degree of temperature may be artificially raised and maintained in most houses. The temperature must be the same in the bed-room as in the sitting-room, and both rooms should, if possible, be on the same floor. The bed-room should be ventilated during the day, and the sitting-room during the night; but the windows of the apartments must on no account be opened while the patient is in them. The bowels may be regulated by some gentle aperient, as salts and senna. No other medicine will be required during the first stage of the disease, except a mixture composed of citrate of potash and squill. When the second stage arrives, while proper attention is paid to temperature, the cough will be found much slighter, and the expectoration much less than if the child were permitted to be exposed to the external air; and at the end of six or eight weeks at the farthest, all symptoms of the disease will disappear. This regulated temperature may be commenced at any stage of the disease with advantage, while the cough is alarming, and the expectoration copious or purulent; and it will not interfere with any treatment which bronchial or pulmonary inflammation may specially demand. Should the disease have been neglected, and the patient be found suffering with purulent expectoration and hectic fever, before the regulation of the temperature has been adopted, he may be speedily relieved by adhering to it, and by the exhibition of half a grain or a

grain of sulphate of zinc, or a quarter or a half a grain of sulphate of copper, dissolved in an ounce of water, with half a grain of disulphate of quina, three times a-day. These metallic sulphates have, with the assistance of an exalted temperature, the effect of reducing the mucous and purulent secretion in this disease, on the same principle on which they succeed in the cure of chronic nasal catarrh, to which the reader is referred. The quina will assist the stomach in retaining the zinc or copper, and in removing the periodicity or quotidian access of the fever. Acute bronchial and pulmonary inflammation must be treated by suitable venesection and other means adapted to these diseases; but they will never be found to arise, when the regulation of temperature is uninterruptedly employed from the commencement of the disease.\* I have before stated, that the mucous membrane of the bowels is frequently affected simultaneously with that of the bronchi or larynx. Hence we must expect remittent fever to manifest itself towards the decline of the bronchial disease. The earliest symptoms of this consecutive fever, will be moaning in the sleep, rapid emaciation, picking of the lips and fingers, and rubbing of the eyes, with which will be associated peevishness, perverseness, and disinclination for amusements. In this state, the least annoyance or opposition excites passion, which is immediately followed by a fit of coughing. The treatment of this modification as well as that of spasm of the glottis, when that is also complicated with whooping-cough, must be conducted in the same manner as I have directed, when speaking of these complaints. Patients who may have had their illness prolonged by either of these diseases should be removed to a healthy situation, where they may enjoy a pure, mild air, as soon as the disordered state of the bowels has been removed. Should any cough remain, which is sometimes kept up by habit and local association, the change of air and scene will at this period soon remove it. The most common convulsions excited by the violent paroxysm of whooping-cough are those which constitute epilepsy. As these almost invariably appear only in robust children, leeches must be applied to the temples, and the bowels freely opened; and if the epilepsy should still persist, the warm bath may be prescribed. If the child is of sufficient age to admit of venesection, he may be bled at the arm; if not, and the case is urgent, the jugular vein should be opened, and three or four ounces of blood abstracted. These are the most dangerous and fatal

\* After the removal of the complication of pneumonia or of bronchitis and bronchial congestion, and if the hoop be long and frequent, and still more, if there be tendency to glottic spasm, or to convulsions, assafoetida and balladonna, the first in the form of mixture, the latter in that of tincture, will be found to be valuable remedies. To each are added advantageously, the carbonate of potassa and ipecacuanha wine. Frictions with stimulating liniments along each side of the spinal ridge are a popular and a useful addition to the general treatment.



convulsions, to which children are liable, and therefore relief must be promptly afforded. Hydrocephalus rarely succeeds an attack of hooping-cough. When it does occur, it must be treated by the usual remedies for that disease. In scrofulous children the bronchial inflammation sometimes terminates in the development of tubercles, which hurry the patient into pulmonary consumption. On this account, the progress of hooping-cough should be carefully watched, in order that acute inflammation in the mucous membrane, and in the pulmonary parenchyma, may be discovered and immediately relieved. Should latent phthisis be detected in the decline of the disease, the patient should be removed to a warm climate, which, in many cases, will have the effect of suspending or retarding the progress of tuberculisation."

The treatment recommended in the above extract, has been tried with favorable results, by a considerable number of persons, and if the reports given of its efficiency, should be sustained, it will certainly form a most useful discovery. The same may be said, too, of the strychnine used in incontinence of urine.

*"Incontinence of Urine, or Involuntary Discharge of Urine.—*An involuntary flow of urine during sleep, is one of the most disagreeable and unfortunate infirmities to which children are liable. It is occasioned by a partial paralysis of the sphincter muscle of the bladder, which derives its nervous influence from the medulla spinalis. The attack usually occurs during the first sleep, when volition is dormant, and the excitomotory system uncontrolled by any counteracting influence. In most patients, a derangement in the functions of the stomach and bowels, which produces general muscular atony and diminished vital energy; from the imperfection of the primary process of sanguification, may be detected by loss of appetite and animal spirits, paleness of the countenance, indisposition for exercise or amusement, furred tongue, and an offensive and unnatural state of the intestinal discharges. To these symptoms may be added itching of the nostrils, lips, and eyelids, and irritability of temper.

"Incontinence of urine also occurs in some children who are subject to epileptic attacks during the night. In these cases it is probable that paralysis of the bladder is occasioned by temporary congestion in the cerebellum or medulla oblongata, promoted by sleep and the recumbent position.

*"Treatment.—*This is general and special. The general treatment consists in the restoration of the chylopoietic derangement, by proper purgatives, as chloride of mercury and jalap administered every third morning; or a few grains of

the former medicine every third night, and a dose of salts and senna the following morning. The epileptic or plethoric should be limited to proper diet, and all descriptions of patients should be restricted from food, and especially from liquids, during several hours before bed-time.

“The best special treatment will be found in the administration of strychnine or nux vomica, which medicines exercise a specific power over the spinal nerves, which they excite into action in a most extraordinary manner. The dose of strychnine for a child, from five to ten years of age, is one-twelfth of a grain, and that of finely powdered nux vomica two grains, three times a-day. The curative effect of either of these medicines is so infallible that I never have occasion to prescribe any other specific remedy.”

We shall here close our notices of this work which has consisted principally in extracting such passages as might serve at once to instruct our readers and show the merits of the book. It is the most full and perfect treatise with which we are acquainted on the surgical diseases of infants, and not deficient in what relates to the medical department of infantile pathology.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE VII.

*Lectures on Natural and Difficult Parturition.* By EDWARD WILLIAM MURPHY, A. M., M. D., Prof. of Midwifery, University College, London: Obstetric physician, University College Hospital; and formerly assistant physician to the Dublin Lying-in Hospital. pp. 281. New York: S. S. & W. Wood. 1846. (From the Publishers.)

From a hasty glance over the pages of this work, we have arrived at the conclusion, that, although there are a great many works of this class extant, there is yet ample room for it. The arrangement of the subjects of the lectures, is excellent; maintaining the proper connexions, which are indispensable to a clear exposition.

We shall take occasion to refer to it hereafter; but in the meantime would recommend its perusal to students and physicians generally.

(For sale by Brautigam & Keen, Chicago.)

## ARTICLE VIII.

*New Periodical.* We have received the first number of "The Annalist," a record of practical medicine in the city of New York. Edited by WM. C. ROBERTS, M. D. Containing 24 pages octavo; to be issued semi-monthly.

Judging from the contributors to this number, we should infer it to be under the especial patronage of the College of Physicians & Surgeons, and of course we shall expect it to be well conducted. The number before us bears evidence of much ability. We hope it will receive a liberal support, and welcome it to our list of exchanges.

## ARTICLE IX.

*Adulterations of various substances used in Medicine and the Arts, with the means of detecting them; intended as a manual for the Physician, the Apothecary, and the Artisan.* By LEWIS C. BECK, M. D., Professor of Chemistry in Rutger's College, New Jersey, and in the Albany Medical College, Honorary Member of the Medical Society of the State of New York, etc. New York: Samuel S. and William Wood.

1846. 12 mo. pp. 333. From the publishers. (For sale by Brautigam & Keen, Chicago.)

The subject upon which this treats is one of much interest to the apothecary and physician, and is generally too much neglected. The adulteration of medicines is carried on to such an extent, that all those who deal in them, should possess that knowledge necessary to distinguish between impure and genuine agents. This work is well calculated to impart such instruction; and the distinguished author, who is every way qualified to do justice to the subject, should be a sufficient recommendation. It should be in the library of every apothecary and physician. J. McL.

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#### ARTICLE X.

*Researches, Historical, Topographical and Critical, on Yellow Fever.* By BENNETT DOWLER, M.D., of New Orleans.

Dr. Dowler is one of the most racy writers in this country,—is a close observer, diligent and thorough in his investigations, and constantly on the look out for something new. We always expect a treat when we find his name as author at the head of an article. The quaintness of his style often serves to spice up what might otherwise be considered the dry detail of facts.

The aim of the present article appears to be, to prove, that while modern, the yellow fever is neither contagious or miasmatic, exclusively Asiatic or European in its origin. The author makes numerous references to prove that had yellow fever prevailed previous to the discovery of America, some of the numerous authors would have mentioned it, and quotes Mr. Webster on pestilence, to prove that the disease prevailed amongst the aborigines of our country, prior to the European settlements.

He deals out blows against malaria and contagion with a masterly hand as follows:

“Barbadoes was settled by the English in 1605, and was soon put in a high state of cultivation. In less than a century, it contained about 150,000 inhabitants, more than 500 to the square mile—a density exceeding that of nearly all other countries. In 1786, the population had declined to less than 80,000—a result, perhaps, more attributable to the exhaustion of the soil, than to the ravages of yellow fever: for this island like most places to which yellow fever shows a geographical predilection, is, paradoxical as it may seem, extremely healthful, being little, if at all subject to other forms of epidemic fever. Lind, repeatedly calls it the most ‘pleasant and



healthful' of the West Indian Islands. Towards the close of the eighteenth century, an English traveller, Sir W. Young, thus describes it: 'The Island is dotted with houses as thickly as on the declivities in the neighborhood of London or Bristol, but with no woods; two or three straggling cocoas near each dwelling, were all the trees to be seen.'

"For two centuries, this island has been the hot-bed of yellow fever, which Dr. Ferguson, Inspector General of hospitals in the West Indies, declares to be of the very worst form.\* If the logic of contagionists is inconclusive, that of miasmatisers is evidently erroneous. No one can deny that temperature, humidity, and the like, greatly influence human health. It does not hence follow that the swamps of Louisiana emit any mystical miasma, (any more than so much rose water,) which is the cause of the yellow fever: indeed the most swampy portions of the state are freest from this disease. When swamps cannot be found, as at Barbadoes, Vera Cruz, Havanna, not to name scores of towns in Spain, including that dry mountain of rock, Gibraltar, still the advocates of this doctrine would have us to believe, in opposition to the evidence of our senses, that as the disease is present so is its assumed cause, marsh exhalation. This extensive subject can only be glanced at in this place. Bancroft† attempts to account for the great epidemic of 1647, not by the agency of swamps, but by stating, that, as, Barbadoes had been then settled but little more than twenty years, and, 'that so little of it was at that time cleared and cultivated, that *dry* weather assisted by great heat, was best suited to the production of noxious miasma; contrary to what has been the case at Barbadoes since it attained its highest state of cultivation many years ago.'—He totally forgets, that as the cultivation increased, so did the yellow fever for two centuries.

"It is worthy of observation, that intermittents are not found in this island. Dr. Gilpin, principal medical officer at Gibraltar, never knew of but one intermittent in that great fortress of yellow fever; yet, miasmatisers persist in referring these two maladies to the same cause. This, however, is a subject which will be investigated elsewhere, and is merely alluded to here, in connection with the topography of the island under consideration.

"Sufficient number of authorities exist, to prove that a great yellow fever epidemic prevailed in this island, in the year 1647, already mentioned. These authors having been contemporaneous with each other, with the events which they have recorded, agreeing in their relation of the same, and having been without any interested motive to deceive themselves or others, their testimony, as far as it goes, is entitled to the utmost credit. Their history of symptoms is necessa-

\* Med. Chir. Trans.

† On Yel. Fev.

rily imperfect, representing in this respect, the science of medicine at that dark period. Dr. R. Vines, a planter and physician, describes this epidemic at Barbadoes, as 'a plague very infectious, first attacking the ablest men of the greatest bodily ability.' Ligon, whose history of Barbadoes appeared ten years after the epidemic, arrived in that island early in September. He says, that before the close of that month the living were hardly able to bury the dead.\* He gives a very remarkable trait of yellow fever, which two centuries have confirmed, and one which is, in the histories of maladies, very peculiar; that '*for one woman that died, there were ten men.*' The mortality was five or six thousand in this small and infant colony!

"Father Du Tertre, who lived in the West Indies, in 1635, wrote an account of an epidemic, which prevailed in St. Christopher, before that already mentioned in Barbadoes, and which he called '*la peste,*' and described as being accompanied with headache, constant vomiting, and death in three days. It destroyed, in three months, one-third of the entire population of that island.

"The assumption, that yellow fever is the product of marsh poison, is not only unsupported by its topographical affinities but is irreconcilable to its modern appearance

"Sterne has somewhere asserted, that our earth is the vilest and dirtiest, and, therefore, the most miasmatic, it may be supposed of all the planets, being made wholly out of the refuse clippings of the rest. The geological account of its primary condition, is not very flattering in a sanitary point of view; since upon the theory of marsh exhalation, yellow fever must have been as old as creation; and withal, infinitely more common and fatal in ancient than in modern times. The land as it arose from the water, boggy, fenny and marshy, shot forth gigantic ferns, and rank herbage of many kinds, which, judging from their fossil remains, now constituting the immense coal fields of our globe, were more like our present trees, in luxuriance, than the aquatic plants of our era. Mountains upheaved by volcanic action, by enclosing vast basins, into which alluvial matter was constantly descending, for countless ages, formed vast swampy areas, from which a concentrated malaria, equaling that which probably followed the Noahic flood, must have caused yellow fever epidemics, sufficient to have destroyed, at least, the males of the Caucasian race, or a great proportion of them, though many white females, and nearly all the negroes, might have escaped then, as now.

"To say nothing of the valley of the Mississippi, its delta alone, from Cape Girardeau to its mouth forms, according to Mr. Forshey, 21,200 square miles, having a mean width of

\* Bancroft and Webster.



418 miles, and a length of 600; the depth of the alluvion having a mean of 50 feet, required 13,684 years for its formation, by deposits from the river.\* During this long period it must have been excessively swampy. The condition in which De Soto found it, in 1539, was of course worse than at present;† yet, the yellow fever did not appear in New Orleans until a period very recent, when compared with the Northern States and the West Indies, which had been previously desolated by many epidemics, for nearly a century and a half before it visited swampy Louisiana. The valley of the Mississippi, not the little fens of Old England, nor the mill-ponds of New England, nor the Pontine marshes, or rather the Pontine pasture lands of the Eternal city, offers the best and most extensive field for testing every possible malarial question which the most imaginative miasmatist has ever been able to conceive or propound since 1717, when Lancisi published his *De Noxiis Paludum Effluviis*. In the entire valley, an area of nearly the third of a million of square miles, since its discovery, the aggregate mortality from yellow fever to the present time, has not equalled the half of that during a single year in Old Spain, where it has amounted by the official reports to one hundred and twenty thousand, in places free from swamps, and even among mountains.

“Omitting the palpable anachronism of the alledged Asian importation, there seems to be as little plausibility as probability, in seeking the cause of a malady, in a country where the malady itself, is unknown. It may be patriotic, however, to defend our country from imputed contagion, right or wrong, and to throw the blame of yellow fever upon our antipodes, though without better evidence than has yet been adduced, this process is far from being altogether scientific. Charge the Siamese with originating the contagion—they will charge the Japanese or some other people. Thus contagion, like the Wandering Jew, will be driven “from Indus to the Pole,” and from the pole to the burning zone. March! March! will be the universal cry. It is affirmed, poetically no doubt, that the great pendulum of the clock of Eternity in its vibrations utters but two words, EVER! NEVER! So it is with this endless question of contagion—*Ever* assuming, *Never* proving its conclusions. Doomed to march! march! it crosses the Atlantic, doubles the Cape of Good Hope, traverses the Indian Ocean, passes through the Straits of Malacca—a distance of twenty thousand miles, to get a product, which a crowd of facts

\* Newspapers, 1846.

† So little has the Louisiana coast, along the Gulf, changed, since 1685, when La Salle committed the fatal mistake of landing—not at the mouth of the Mississippi, as he intended—but west of it, that Mr. Darby has been able to identify the exact place of his debarkation, between the Vermillion and the Mermentau rivers, from the minute description, at that period, of this shore, with its extremely uniform, low, shining banks of sand; all of which, he declares, he took some pains to ascertain.—*Descrip. La.*, 1817.

show to be indigenous to certain places of the western hemisphere, or to certain local climates, acting during the hot season, and for only a few years, on unassimilated constitutions not long resident in cities or villages.

“The cause, which in one locality, produces g<sup>o</sup>itre; in another, elephantiasis; in a third, Plica Polonica; in a fourth, the yaws; in a fifth, leprosy; in the sixth, yellow fever—is quite unknown, though many pretended explanations have been given. As some places produce wheat, or bananas; live oaks or cypresses; hanging m<sup>o</sup>ss or palmettos; mosquitoes or alligators—so may yellow fever be produced, without our being able to show the cause of the one or the other class of effects.

“That the essential cause of yellow fever will ever be discovered, or being discovered, will be controlled or prevented by human art is altogether improbable. Its mysterious cycles culminate, decline, and re-appear. Charleston, desolated at the close of the seventeenth century, was exempt in the first quarter, but a sufferer in the second quarter of the eighteenth—nearly half a century of exemption followed again—(a period much longer than that which now cheers the cities of New York, Philadelphia, Boston, and Baltimore, with the hope that the yellow fever has taken its leave of them forever.) But the last decennial period of the past century, and the first of the present, relumed the flames of the epidemic in Charleston where they had smouldered so long, and in which they continue to break out almost annually. Charleston suffered nearly a century in advance of New Orleans, and is still as great a sufferer as the latter.

“It is to be lamented that the topographical ameliorations which have been pushed forward with a celerity characteristic of New Orleans, have not diminished or modified the yellow fever of the place, though strange to say, this opinion is so unwelcome to all, and so humiliating to theorists, that it is constantly repudiated, while ‘the long funerals which blackened’ all the streets, no less than five different seasons, from 1837 to 1843, inclusive, are still but too fresh in the recollections of a hundred thousand people. As gloomy prognostications are as useless as unwarrantable, let us hope that New Orleans has entered upon a non-epidemic cycle, not only for half a century, as once happened to Charleston, but forever. The yellow fever prophets and prophetesses, have not, hitherto, been able to read the Sibylline leaves of its etiology, so that epidemics can be certainly known until after their occurrence.

“The rejection of one error never justifies the adoption of another, unless it be on the principle of Dean Swift, that all happiness consists in being *well* deceived, or on that of Fontanelle, which makes philosophy itself consist in much curiosity and very bad eyes. To explain the cause of yellow fever



seems to be regarded, not as supererogation, but as a paramount duty enjoined in the medical decalogue. It is scarcely reckoned a sin against logic, to resort to almost any etiological *non-sequitur*, for this purpose. The cause is assumed; when the effect appears without the cause, either nothing is said of the absence, or some other cause, condition, or circumstance is affirmed as a sufficient substitute for the truant; when the assumed cause exists in the greatest concentration, without the presence of any effect whatever, some assumed contingency is supposed to counteract its power: as a *ruse de guerre*, a mere incident, will, however, always answer, and can always be found:—dry or wet; hilly or marshy; rocks or mud; vegetable or animal matter; stagnant air or storms; heat or cold; infected ships, or a ‘pair of trowsers;’ immigrants or insects; gases or graveyards; absolute or conditional contagion or malaria, both foreign or domestic. This sort of ratiocination was not altogether unknown to Joe Miller:—‘The Frenchman who observed that an Englishman recovered from a fever after eating a red herring, administered one to the first of his fellow countrymen whom he found laboring under that disease, and having found that it killed him, noted in his tablet that a red herring cured an Englishman of a fever, but kills a Frenchman.’ ‘Rotten coffee’ is found in Philadelphia; three barrels of spoiled mackerel, sour-cROUT, sour porter, and rotten corn, two thousand pounds of bad bacon, with the heads and entrails of some catfish, are found in a certain town in the State of Mississippi; and a ‘trash wharf’ in the city of Augusta, Georgia, etc.—these are gravely substituted for contagion, for ‘a dirty pair of trowsers,’ (from Martinico,) in which, according to the most ‘potent’ authorities of a New England city, a most deadly epidemic was imported. Have not ‘dead fish,’ ‘trash,’ ‘dirty trowsers,’ and the like, abounded since the foundation of the world, in all climates and places? Does not the law of continuity in the cause, [‘trash,’] require a corresponding continuity in the effect, [‘yellow fever?’] Were yellow fever producible by a few pounds of ‘rotten coffee,’ would not the incendiary, when sated with conflagrations, amuse himself, by way of variety, by kindling up an occasional epidemic, especially if he were himself acclimated, and wished to profit by the commercial speculations always incidental to such an event, whether his stock in trade consists of cotton, sugar, red herrings, drugs or coffins.

“In denying, or rather doubting, that yellow fever is produced by any emanation from the sick, or from marshes, nothing more is intended than such emanation is unsupported by any evidence worthy of belief. Were a subterranean, a solar, a lunar, or a stellar theory substituted, it might be true or not; the *onus probandi* belongs to the proposer of such doctrines.

"An alledged cause ought to be invariably followed by its effects: for example, if the doctrine of imported contagion be adopted, then the town of the Balize, at the mouth of the Mississippi, is the most exposed point on the globe, as the vessels supposed to be infected, are often detained there for want of pilotage, and towage, and from getting fast on the bar; adopt miasma as the cause, and yellow fever ought to be eternal, as this is, of all towns, the most exposed to marsh exhalation, and yet yellow fever is unknown to the residents.

"The *morale* of contagion and miasma is very dissimilar: the one is anti-social, repulsive, dooming its victims to cheerless insulation—to withering neglect. It cries—stand off!—perish in ships!—perish in lazarettos!—perish in hovels!—'let the dead bury the dead!' The other, like the good Samaritan, fearing nothing from contagion, offers not only personal attendance but sympathy in the hour of need. Besides the utilitarianism of this latter doctrine stands forth, actualized in the improving, draining, cleansing and embellishing of both town and country localities. Yet in the sciences, the utility of an error cannot plead its justification. Sciolism may declaim against the pulling down of existing systems. It seems to abhor a vacuum. But the massive columns of truth will never arise until the foundation shall be clear."      E.

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#### ARTICLE XI.

*Elements of Materia Medica and Therapeutics.* By EDWARD BALLARD, M. D., London, Physician to the St. Pancras Royal General Dispensary, and Medical Tutor in University College, London, and ALFRED BARING GARROD, M. D., London, Physician to the Fore Street Dispensary, and Lecturer on Materia Medica and Therapeutics in the Aldersgate School of Medicine. With additions and alterations by R. EGLESFIELD GRIFFITH, M. D. Philadelphia: Hogan & Thompson. 1846. From the publishers. (For sale by Brautigam & Keen, Chicago.)

This work is designed to be strictly elementary, and so far as the history of drugs is concerned, a compilation. In our large works on Materia Medica there is much matter not absolutely necessary for the practitioners to know, and is scarcely ever read attentively by the medical student. In reference to this work, the authors say, "without depreciating then, the larger works in our language as books of reference, the present is intended to be one, every word of which the student ought to read, and with whose entire contents he should render himself familiar."

The first division of the work treats of the general principles of therapeutics, and of chemistry and natural history as



applied to *materia medica*, occupying 67 pages. The second is devoted to the consideration of the individual articles of the *materia medica*. A chemical classification is adopted for the inorganized, and a natural historical one for the organized substances.

That portion of the work including the general principles of therapeutics, chemistry, and natural history as applied to *materia medica*, and the inorganic medicinal agents, was prepared by Dr. Ballard; and the remainder, including the organic medicines, by Dr. Garrod.

The American editor has added the formulæ of the U. S. pharmacopœia, and also some medicinal plants indigenous to this country, and extended or modified the description of others. In an appendix are added some of the more recent pharmaceutical preparations, and the therapeutical agents, electricity, bathing, mineral waters, blood letting, &c.

The work is well calculated for what it purports to be, viz: an elementary work on *materia medica*. In addition to what is original, those main and leading facts which are of the utmost importance to the physician, have been gathered from standard works, from among other matters of less importance.

The matter and arrangements are good. The latest improvements in medicines are noticed, and much has been condensed within a small compass, which renders it a valuable text book for medical students.

J. McL.

## PART IV.—EDITORIALS.

## ARTICLE XII.

## RUSH MEDICAL COLLEGE.

The lectures in this institution commenced, as usual, on the first Monday of November, to a much larger class than has been in attendance at any former session.

As Chicago is taking rank amongst the large cities of the west, her medical school seems to be rapidly growing in the favor and confidence of the medical public. And we see no good reason why it shall not continue to increase in the facilities for instruction, with the rapid growth of the city, and at once take a stand amongst the first institutions of the kind. It is a well established fact, that no school of medicine can give great facilities for the study of anatomy, or for clinical instruction, unless located in a populous city. And without these, it is scarcely worth while for the student to spend his time and money, in attending upon its teachings; as the former is the foundation, and the latter the capstone of a medical education, which, without them, is like an edifice without anything to stand upon, or to cover it,—an early and a positive ruin.

In these respects, Chicago, which contains about fifteen thousand inhabitants, offers facilities equal to any city of its size in the country, which will increase, to correspond with any probable increase in the classes of the college.

The city dispensary (the foundation of a hospital to be established) now affords an extensive field for clinical observation, and the instructions in it are amongst the most valuable of the course.

The college library, to be used for reference, by an arrangement of the faculty, will regularly increase year after year, and now furnishes most of the works to which a teacher or student could desire to refer; in addition to which, are regularly received all of the medical periodicals published in the United States.

The museum is rapidly filling up, and in a few years will be one of the best in the western country.

The friends of the institution are earnestly requested to



preserve, and send in, all valuable specimens in morbid anatomy, botany, &c., they may find, which shall be labeled with their names and carefully preserved.

The members of the faculty, are required to remain in attendance, during the whole term of the session, and the course will be as full and complete as in any school in the country.

This arrangement is the more gratifying since a number of small schools, in the country, are in the habit of giving in a few weeks, sometimes not over three or four, their full course on several of the branches.

If we understand rightly what is necessary to constitute a full course of instruction, as customary in all medical schools of good standing, (though entirely too brief even then,) it is to have a lecture of one hour each day of the session upon chemistry, practice, anatomy, and surgery; unless the two latter are associated and taught by the same professor, as they formerly were in most schools, when but nine lectures per week were given upon the two branches; four lectures per week upon each of the branches of materia medica, and obstetrics, &c., with the regular anatomical demonstrations. And we hold that no school giving less instruction than this, should be recognized by other colleges as giving a full course of lectures.

With the advantages of a location in a city, that must soon become the principal mart, for a large portion of three or four adjoining states and territories, a full and thorough course of instruction in its several departments, a well selected library, a museum containing a large number of specimens in morbid anatomy, special and surgical anatomy, mineralogy, geology, botany, and a complete cabinet in materia medica, a good set of chemical apparatus, and the preparations, machines, and instruments, necessary for fully demonstrating the courses on surgery and obstetrics; a full supply of the material for demonstrating anatomy, its extensive clinical instructions in the hospital, and the great liberality of the city towards it, the Rush Medical College must soon be one of the very best institutions of the kind in the country.

E.

## ARTICLE XIII.

## HOSPITALS FOR THE INSANE.

It is gratifying to us to communicate, as it must be to every member of the profession, that rejoices in the alleviation of human suffering, to learn that Indiana has now in progress of erection a large and elegant Hospital for the Insane.

It is calculated to accommodate one hundred and forty or ~~fifty~~ patients, with the officers, attendants and servants necessary for its management.

The plan of its internal arrangements, made out from an examination of similar institutions, by our colleague, Dr. Evans, who is superintendent of the institution, is said to be one of the best yet devised; combining more conveniences, with less expense, than is generally to be found in such establishments. Although three hundred feet long, with contemplated additions of one hundred feet more to each end, being three and four stories high, there is scarcely a foot of room in the whole establishment that will not be usefully and appropriately occupied. The provisions for the comfort and appropriate treatment of the patients, are ample and most admirably arranged.

The system of ventillation is such, that the fire that heats, through steam pipes in a hot air chamber, all the wards in the institution, at the same time exhausts, by its draft, the rooms of their foul air and burns it.

The walls of the basement story are now put up, and in the course of the next year the building will be enclosed. So within a very short period Indiana may boast of an institution which, if well managed, will be one of the proudest monuments possible for her to erect; a monument of her benevolence; showing that her people have hearts to feel for the unfortunate, as well as heads to perceive what is her true interest.

But where stands Illinois in this matter? With a population of *two hundred and ninety-two* insane and idiotic persons in 1840, which may safely be set down at *one hundred and seventy five* insane persons at this time, what are the means provided for their care and treatment? A simple statute, by which they may if paupers enjoy the benefits of the poor laws.

However, we fain would hope that Illinois is waking up to



the subject. Some time in the year 1844, Dr. Stahl, of Quincy, wrote and published a long article, calling the attention of the people to the subject. During the following winter, Dr. Mead delivered an address upon the subject to the people of Jacksonville, and we understand, will send up a petition, signed by numerous citizens of the state, praying for such an establishment, to the present session of the legislature.

And we understand that a great degree of interest in reference to the subject, has been excited in different parts of the state, during the past summer, by a visit from that celebrated philanthropist, Miss D. L. Dix, than whom, no individual has done more for the relief of the insane of America.

It was her purpose to have travelled over the whole state, visiting most of the counties, collecting facts in reference to the condition of the insane, by which course she would have been able, in a memorial to the legislature, to have set forth such an array of facts in reference to their condition, (as she has done in many of the States and in Canada,) as that to oppose provisions for the establishment of a hospital for their treatment, would have rendered a member of a legislature in a christian community, liable to the charge of gross inhumanity. But the hand of affliction arrested her labours. She has for two months been exceedingly ill, and if she is at all able to visit Springfield before the adjournment of the legislature, it will not be until toward the close of the session. We, however, confidently hope she may yet be there, as her familiarity with the subject, and her powers of persuasion, we doubt not would place the subject in such a light, before our senators and representatives, as to cause them to take some efficient action upon it.

At all events we sincerely hope they may see the matter in its true light.

A Hospital for the Insane would not only be a blessing of uncomputed magnitude to the unfortunate sufferers, who are our brethren, our sisters, and our friends, but it would be a great saving to the State, in taking better care of the insane poor, at a greatly reduced expense, who must at all events be supported by the people.

## ARTICLE XIV.

## LETTER FROM DR. HERRICK.

We have received a letter from our colleague, who was appointed to the Medical Staff of the army that has marched against Mexico, dated "Banks of the Elhonda, 56 miles from San Antonio, Texas, Oct. 5th, 1846," he being surgeon to the 1st regiment of Illinois volunteers, under command of General Hardin, which with the 2d regiment had joined the army under the command of General Wool, and were on their march to Mexico.

There has been considerable sickness in this detachment of our army. He says: "They have been afflicted with measles, mumps, and numerous other diseases, besides those peculiar to the climate; yet after all the mortality has not been great, not more than seven men having died out of the 1st regiment.

The letter closes by saying that we may, in a few days, expect an article from him for the Journal.

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ARTICLE XV.

## SECRET REMEDIES.

Of all the impositions upon a credulous community, the traffic in nostrums is perhaps the most successful, and carried to the greatest extent. You cannot open a newspaper, or turn a corner, but you are met with an announcement of some *wonderful* elixir of health, whose *undoubted* virtues are blazoned forth by high, sounding recommendations, and hosts of certificates.

It was formerly the case that they pretended to cure all disease, but fashions change in this as in other matters, and we find them now strongly condemning the quackery of this course, (on the principle of the thief crying stop thief,) and confining their application to a few diseases.

In these nostrums the secrecy is the charm which causes community to repose confidence in, and patronize them. Remove this charm, and the speculation in them is at an end. An instance directly in point is fresh in the recollections of the



people of the whole West. A few years ago, Sappington's Pills were in almost every store in the country, meeting with the most active demand. Sappington published the recipe, and although a much better and more active preparation than ninety-nine out of a hundred of their class, where are they? almost entirely forgotten.

The legislature of the State of Maine seems to understand this matter, and to conclude that the people will be quite as likely to appreciate the virtues of a remedy, and be much better judges of its value if they know its composition.

They have passed a law providing under heavy penalties, that "no medicine shall be exposed to sale without a label setting concisely the names of all the ingredients or simples of which such medicine is composed, and the proportion of each." We hope, as the good people of the west have been sufficiently gulled by the venders of these, many of them vile compounds, they will put a stop to them by requiring their composition to be given.

But, there is another point in this case to which we wish to refer. It is in the unprofessional conduct of some physicians, in endeavoring to gain reputation with the people by professing to have secret remedies. For the sake of the credit of our profession, we had hoped that no member of it, who claims a higher standing than the empiric, would have condescended to pursue such a course. Of course they place themselves in the same category with the venders of secret remedies, with this difference, that while they acquire a neighborhood notoriety the nostrum vender's name goes abroad through all the land.

We call upon all honorable members of the profession—all who desire to see it maintain a reputation for skill and usefulness—who desire to see a clear line of distinction drawn between the quack and the physician—the ignorant pretender and the man of science, to set their faces against all such disreputable practices and gross deceptions.

E.

ARTICLE XVI.

NEW MEDICAL SCHOOL.

A circular has been issued announcing the organization of the "Medical Department of the University of Buffalo," at Buffalo, N. Y., and that the first annual course of lectures in the institution will commence on the 24th of February next, and continue sixteen weeks.

The Faculty is principally taken from the Geneva school.

We, however, understand that the Geneva school is to be continued under its present organization.

This may be a good arrangement, as students may attend in the school at Geneva during the winter, and at Buffalo in the spring, thus taking two courses of lectures immediately in succession.

The Faculty is organized as follows:—

C. B. COVENTRY, M. D., *Professor of Physiology and Medical Jurisprudence.*

JAMES WEBSTER, M. D., *Professor of General and Special Anatomy.*

CHARLES A. LEE, M. D., *Professor of Pathology and Materia Medica.*

JAMES P. WHITE, M. D., *Professor of Obstetrics, and Diseases of Women and Children.*

F. H. HAMILTON, M. D., *Professor of Principles and Practice of Surgery and Clinical Surgery.*

AUSTIN FLINT, M. D., *Professor of the Principles and Practice of Medicine and Clinical Medicine.*

GEORGE HADLEY, M. D., *Professor of Chemistry and Pharmacy.*

CORYDON LA FORD, M. D., *Demonstrator of Anatomy.*

"Fees for all the lectures, is \$62, which will, in all cases, be required on taking the ticket."

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ARTICLE XVII.

MEDICAL SCHOOL IN MICHIGAN.

We learn that efforts are now being made for the establishment of a medical school, near the central point of the State of Michigan. The persons concerned in it are gentlemen of



highly respectable characters, and all that is required for perfect success of the enterprise, is prompt and vigorous action.

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## ARTICLE XVIII.

## WILLOUGHBY MEDICAL INSTITUTION.

The Faculty of Willoughby Medical School are now giving, as we are informed upon good authority, their last course of lectures.

To a large number of the physicians in this region, it may appear surprising that a school, which numbered upwards of 160 students in the class of last season,—which has so respectable and active a faculty,—which has its graduates scattered through the west, should suspend operations. To those, however, acquainted with the situation of the town of Willoughby, and the great disadvantages it labored under, it has long been obvious that a school at that place could only be supported by the excessive and constant efforts of its faculty and friends. The reason is obvious: it is the proximity of the place to Cleveland, where the advantages afforded to students, are, or will be, every way superior. Cleveland is the natural centre of business for Northern Ohio, and individual efforts will not long contend against natural and constantly operating causes in any department of human affairs. Another cause has, we doubt not, contributed to discourage the faculty at that place; it is the almost unlimited adoption of the credit system, whereby, with the gratification of lecturing to a large class, professors are forced to submit to the inconveniences of empty pockets.

Whatever may be the causes, we congratulate the profession in this region on the result which is the suspension of the school at Willoughby, and its transfer, with some modifications of faculty, of which we are not fully informed, to Columbus, Ohio. In this new region, and the adjoining part of Indiana, there are a large number of students and practitioners, not graduates, who will be benefited by the transfer, and we hope now to see the faculty of the Cleveland Medical College restore the price of their tickets to the ordinary standard of the northern states, a course dictated by their own interests, as well as those of the profession at large.

## PART V.—ABSTRACTS.

## ARTICLE XVII.

## THE MANNER OF USING QUININE.

Any recent experience in what may be called the new method of using this important remedy is possessed of great interest. Dr. R. S. Holmes of the U. S. A., has a paper in the American Journal of Medical Sciences for October, 1846, on "Quinine and Malaria," in Florida, from which we gather the following practical items.

In intermittents he never gave it when the bowels were in a torpid or gorged condition, its effects then seeming to be lost. Has given it when the bowels were actively purged or irritated, combining it with laudanum. In an ordinary intermittent, after having freely opened the bowels, fifteen grains were generally given at one dose, on the evening of the day on which the purge was taken. If the fever was a quotidian, the paroxysm recurred on the next day, remaining as long, but of a lighter grade; on the third day the patient was free from disease. If the disease was of the tertian form there would not be a paroxysm after the administration of the quinine, from which Dr. H. deduces that it requires about eighteen hours for the full effects of quinine to manifest themselves, and which his subsequent practice fully verified.

He did not find this agent to become less active by repetition, having given the same number of grains time after time for a successive attack, and always with the desired result.

The quinine never was given during the fever or chill, on account of the difficulty of retaining it, not that he believed that if it was retained, it would have been injurious or have operated less effectually.

In congestive fever, two indications are to be met immediately,—to rally the patient for the time being by friction, mustard poultices, and stimulants, and to prevent the periodical return. In the first few minutes after seeing the patient, has given him from thirty to sixty grains of quinine at one dose, in water or brandy; the brandy for the former, and the quinine for the latter indication. If the attack was severe, and the quinine not retained, it was given by enema.



In the writer's own words,—“I have given the quinine in the highest stage of the fever, and in the lowest of prostration; never permitting any existing state of inflamed bowels or stomach to deter from its administration, or lessen the dose in which I would otherwise have given it; I have not lost a patient from inflammation following congestion, and where the quinine has been given as here mentioned. I have not seen a patient die, who survived twenty-four hours from the time of attack. The fatal cases are those in which the quinine has not been given in a proper quantity, or where it has not been thrown into the constitution for a sufficient length of time to reach the disease.”

After referring to the opinion, that quinine, in large doses, produces excitement in the brain, and irritation of the bowels; and therefore that even in urgent cases of congestive fever, where these organs are implicated it is sometimes withheld, for fear of aggravating these morbid conditions! quotes a case to illustrate the benefit of quinine, where such complications exist.

It was a dangerous remittent, with inflammation and congestion of the stomach and intestines of a high grade, so great that the attending physician directed his efforts to the subduing of the abdominal disease, and being at the same time impressed with the idea of the irritating power of quinine, the fever was suffered to proceed unchecked. On the seventh day, it was believed that the patient would not live forty-eight hours, if the fever remained at the height which it then reached, whilst it was supposed that the intestinal inflammation, would not prove fatal in less than three or four days.

Therefore, with much hesitation, forty grs. of quinine were given in two doses in twenty-four hours. The next exacerbation was trifling, and afterwards did not occur. The severe and obstinate inflammation was recovered from in six weeks.

The following points of practice are thus set forth:—

“Every periodical disease is to be checked immediately. Quinine, as a remedy for periodicity, is to be given regardless of any existing state of inflammation. Never give quinine in divided doses, when directed for the immediate cure of a periodical disease. To be certain of the operation of quinine in a constitution with which you are not acquainted, it must be given eighteen hours before the desired result. In emergent cases, it may be given in the lowest state of prostration, or the highest grade of the fever. As a general rule, fifteen

to twenty grains will be necessary for an intermittent, and thirty to fifty, for a congestive fever. Never give quinine for the cure of a periodical disease in anticipation, when the periodicity exceeds five days."

In larger doses than tonic ones, its tonic action is quickly followed by stimulation, and this again by sedation: but to produce this last in any great degree, it must be given in large doses. Consequently if it is given immediately before a chill, and arrests it, it does so by its stimulating power; but this stimulation is not so certain, or effectual, as its sedative effect, in which consists the great anti-periodic power of quinine.

Dr. Wm. M. Boling, of Montgomery, Ala., considers quinine as a prompt, decided, unequivocal sedative of the heart and arteries, applicable in all cases of remittent fever, accompanied by an increase in the *force* and frequency of the circulation, and "the very best remedy for bringing about that absence of great febrile excitement, which was considered requisite for its successful administration as an anti-periodic." In inflammatory cases, when the pulse indicates it, blood-letting is recommended in conjunction with the quinine, but not as a preparative.

In reference to purgatives he advises that moderate evacuations from the bowels be procured before giving the quinine, as thereby it acts more decidedly, and less of the remedy is required, more than this is not considered beneficial.

It is the author's opinion that much mischief is done in postponing the administration of quinine by a preparatory treatment, in order to procure a more perfect remission: severe cases dying while under this preparation, and mild cases becoming worse; and of whatever type or character the (remittent) fever may be, if the case is dangerous, no time is to be lost in bringing the system decidedly under the use of quinine. Gives it in the remission when this is well marked and of some duration, probably more from habit than anything else, but when the case is urgent gives it without regard to the stage of the paroxysm. "Two portions of from eight to sixteen grains each, according to the urgency of the symptoms given within a couple of hours of each other, will most generally bring the patient under its influence, two or three hours after the administration of the second portion." Where



the case is very violent, with but a short period, until the next exacerbation, the whole may be given at once.

After the system is fully under the influence of the medicine, eight grains every third or fourth hour, will produce all the good that can be obtained from it.

When there is an inflammatory complication, the remedy must be continued until this is subdued. If withdrawn too early, the local inflammation will increase.

Under the favorable action of quinine the pulse becomes less frequent, if it has been small and corded, it is increased in volume, and if hard and firm, is rendered soft.

The skin becomes moist and cool, the tongue moistens and the thirst diminishes.

In the pernicious or congestive remittents, we must be cautious in our administration of quinine. Here, where there is much real as well as apparent debility, if we do not give sufficient to arrest the disease at once, the patient may die in the next exacerbation, whilst at the same time, "it is to be dreaded that a quantity necessary to effect this, may destroy by its depressive action." If, as is often the case, the state of the stomach and bowels forbid the use of stimulants, opium is the best remedy to sustain the system against the depressing effects of quinine, whilst at the same time it controls the irritability of the stomach.

When the stomach is so very irritable as not to retain the medicine, even when thus guarded by opium, it is to be administered by enema,—twenty to thirty grains, every second hour, in two ounces of starch, until the desired effect is produced. "As a stimulant, the opium may be administered in the same way, as much as the patient can bear without narcotism." When diarrhoea exists, or when the rectum has been rendered irritable by laxative enema, 80 to 100 drops of laudanum may be injected in a little starch, previous to the quinine.

The existing impression that mischief must result from giving quinine, except during the remission, is unfounded. "So far is this from being true, that there is nothing with which we can more effectually aid in cutting short an exacerbation, than the quinine itself, commenced, and administered freely during that time." See Boling on remittent fever, *Am. Jour. Med. Sci.* July, 1846.

The experience of Dr. J. J. B. Wright, U. S. A., in Arkansas and Florida, with quinine in remittent fevers, is substantially the same as that already noted, as the following quotation will show.

“They who contend that its curative agency is due to a direct effect on the tonicity of the muscular fibre, would prescribe its use in all cases where this vital property, or the contractibility of the muscular system, might be presumed to be in an exalted position. But the physician experienced in diseases of southern climates will tell you that he is in the practice of administering it when the condition of these vital properties is, seemingly, at least, above par. For instance, he exhibits it at the very height of the paroxysm of the remittent fever of his climate, and finds as the result of its action, a reduction in the force and frequency of the pulse,—a diminution of animal heat,—a moist condition of the skin,—a subsidence from febrile disturbance to fair convalescence. Now, if the experience and observation are right, can the theory be otherwise than wrong? On the other hand, those who maintain that the remedy acts by sedation, do not hesitate to exhibit the article when the powers of life are depressed to the utmost limit compatible with existence; and they aver that its agency is curative under these circumstances. True it is that the writer has himself frequently given the quinine in both of the conditions stated, and in both his experience teaches that advantage resulted from the practice. He has witnessed a decided improvement to follow the exhibition of  $\mathfrak{D}\text{ij}$ . of quinine, repeated in two hours, in advanced congestive fever, when the condition of the case was characterized by a lethargic state of the sensorial functions, verging on coma,—cold extremities,—cool surface, bathed in limpid perspiration,—dry and pallid tongue,—feeble and fluttering pulse, &c. And again, whilst on duty in Florida, in the summer of 1842, in charge of the General Hospital, it was his usual custom, after attentive observation of the safety of the plan, to exhibit twenty grains of quinine *at any period of the paroxysm* of the remittent fever of that country, and he is safe in declaring that the practice was successful—as the Quarterly Report to the Surgeon General’s Office will testify, not a single death from remittent fever having been reported during the season, nor from its sequelæ.”—Wright on the use of Sulphate of Quinine, *N. Y. Journal of Med. and Collat. Sciences.* September, 1845.

Dr. W. H. Van Buren, late of the U. S. A., furnishes concurrent testimony of this mode of using quinine, in Florida.

In simple intermittents of every variety, he gave it in doses



of from 15 to 20 grains, from six to twelve hours before the chill, and, where there was no visceral or glandular disease, used no preparatory treatment.

In remittent fevers, the paroxysm being treated according to the particular indications, "The moment the skin becomes moist, without particular regard to the state of the pulse, I give from 20 to 25 grs. quinine, according to the severity of the case," &c., and repeat it in from four to eight hours. When the stomach rejected it, applied 60 or 80 grs. to a blistered surface on the epigastrium. In malignant intermittents found the same doses equally successful, but it was necessary to keep up its action for a longer period than in simple remittents.

In the congestive fever, had no precise limit to the use of the remedy, but believes that 40 grs. if retained and digested will suffice, combined with stimulants, internally and externally; under this treatment, considers the disease perfectly manageable, when it is applied in time by a physician of judgment.

In yellow fever, has never seen "any decided and permanent good effects from the use of quinine," though "employed in doses of every size in a number of cases," the writer believes "that the primary seat of the disease in yellow fever, is in the *blood*, and not in the nervous system, as in miasmatic diseases. Derangement of the nervous system being the *consequence*, and not the *cause* of the disease." By this he wishes to "explain if possible," the inefficiency of quinine in the cases referred to. Van Buren's Report on the use of Quinine. *N. Y. Jour. Med.* Jan., 1846.

Abundant evidence has been adduced to establish the method of giving quinine, which the papers referred to advocate, in the *South*. But it still remains to be seen how far the same rules apply to the *North*. That it does not apply to all the portions heard from would seem to be proved, whilst in other localities the Southern practice, with certain modifications, can be followed with advantage.

Thus Dr. Geo. Mendenhall, of Cleveland, Ohio, found venesection, local bleeding, emetics, and revulsives generally useful. Diaphoretics were "almost always necessary," and cathartics indispensable. The following extract will give an idea of the practice pursued.

“As a general rule, a depletory and cathartic course was necessary. These, with the other means which have been mentioned, had to be continued until a decided remission or intermission in the febrile action should take place, unless the system became too much reduced to bear them further. When the periodicity was well marked, and the tongue began to clean, quinine could be borne, and almost invariably with advantage. The quantity which we have been in the habit of giving during an intermission or distinct remission, was from ten to fifteen grains, dividing it into about five equal portions, and watching the effects of each dose (which were given about two hours apart,) until after the administration of the first two or three. When perspiration followed its use there could be no question of the propriety of its exhibition, and the result was then in all cases satisfactory.” Mendenhall on Quinine in Fevers. *Am. Jour. Med. Sc.*, July, 1846.

Dr. Austin Flint, of Buffalo, has advocated the employment of quinine in large doses at that place. His practice in intermittents was to give from three to five grs. at a dose, repeated every one or two hours, rarely exceeding twenty grains in the twenty-four hours; and in general principles of his treatment for intermittents and simple remittents, coincides with the southern practice. Flint on the employment of quinia in large doses. *N. Y. Jour. Med.*, March, 1846.

Dr. Mendenhall in his paper from which I have quoted, objects to the general application, at the north, of Dr. Flint's practice on the ground “that nearly or quite all the cases which he (Dr. F.) treated so successfully with large doses of quinine without preparation, contracted the disease at some other place, and that in their removal to Buffalo they were removed away from the ‘continued, concentrated action of malaria.’ In these cases, then, one curative means was complied with, which of itself is often sufficient to accomplish a cure, viz.: a removal from the cause of the disease.”

Now, how far this was the case cannot here be decided. But I have had, during the past season, the evidence of my own, and other physicians' practice, that quinine can be given in large doses to arrest intermittents and remittents, with entire success. The form of remittent which we have had in Chicago and its vicinity, is that popularly called “Chill Fever:” there was generally during the remission an entire absence of heat of skin, the pulse remaining frequent though soft, the general pain and soreness in the severer cases also continuing. A com-



mon accompaniment was irritability of the stomach, so that in some cases, during the exacerbation, not even cold water in small quantities was retained. In the severer cases, the patients were delirious whilst the fever continued.

Usually, the only preparative treatment was a full dose of oil, after a small portion of calomel, the former given usually during the remission, as often the stomach would have rejected it at any other period. I generally found the remission more complete after the bowels had been emptied. In the next remission, gave about 20 grs. quinine with two or three grs. powd. opium, in four doses every two hours, often in two or three doses, and occasionally all at once, when I had not sufficient time to divide it before the accession of the chill.

I, in perfect confidence, anticipated the suspension of the disease, if not at the next exacerbation, certainly at the time of the second, and was very seldom disappointed. It occasionally was not arrested until the latter period, verifying Dr. Holme's observation that it requires about eighteen hours for the sedative effects of the remedy to be developed.

The usual adjuvants of cold to the head, warmth to the feet, diaphoretics, sinapisms, and blisters, were occasionally employed during the exacerbation, and the quinine was sometimes delayed a day or two to allay a very irritable stomach, but still the principal agent was the quinine, and I have often given it in remittents, with a dose of calomel without any preparation, and have never known any ill effects to arise from it.

As County physician, I had very many such cases among the poor population, most of whom were in an unfavorable situation as regards nursing, and all the ordinary comforts of sickness.

Here the experience of Dr. Mendenhall on the one side, and Dr. Flint, and some of us of Chicago, on the other, does not agree as to the best mode of using quinine in the North.

It is possible that peculiarities in the locations of the places, modify the disease. As it is, the subject requires a more extended observation in the northern portion of the country, which it doubtless will ere long receive.

H. S. H.

## PART VI.—SELECTIONS.

1. *Observations on Croup*; a paper read before the Fellows of the College of Physicians and Surgeons, by ALEXANDER H. STEPHENS, M. D., President of the College.

The frequent occurrence of Croup, and its not unfrequent fatality in the northern and maritime regions, especially those of the United States, render important every addition to our knowledge of the nature and treatment of this formidable disease.

Up to the time of Dr. Bayley, of New York, no modern writer appears to have entertained correct pathological notions of this malady. It had previously been confounded with anginose affections of the fauces. It was, however, known to Hippocrates, who describes it in these remarkable words: "Ab angina homo suffocatur, oculi affecti sunt, ac velut strangulatis prominent; facies et fauces incenduntur, imo etiam collum intumescitur, vero nihil mali habere videtur."

We owe to the late Dr. Hosack of this city, the best description of the various stages of croup, and probably the best practical directions for the treatment of it. Yet, there are important points both of pathology and practice which he leaves wholly untouched, and others in which, if I am not mistaken, he is inaccurate.

It is usual among the medical men of this city, to speak of genuine croup, meaning that in which a membrane is formed in the trachea, and of spasmodic croup, many of them believing that inflammation either does not exist at all in the latter species, or that it is not the prior or primary morbid condition. These views I hold to be erroneous, and if carried out in practice, highly dangerous.

Professor Ware, of Boston, (the most recent writer on croup,) has recently presented another view of the subject, in a well reasoned paper, wherein he records numerous cases and dissections, knowing how little that is truly valuable to the American physicians in relation to croup, is to be found in European publications, more especially among the continental writers, or rather, how far they fall short in establishing those rules of practice, by which alone, the American physician can successfully contend with the formidable malady. I am led to infer that it may present itself under different aspects in different regions. Be this as it may, the division of croup proposed by Professor Ware into four species, viz: catarrhal, membranous, inflammatory, and spasmodic, does not accord with my own experience, or with that of the most sagacious and experienced practitioners in this city, with whom I have conversed on the subject.

The forms under which croup has presented itself to my



observation in this city, during a period of more than thirty years, are the following :

1. A child with coryza and occasional cough of the ordinary character, as in bronchitis, is playing about without sore throat, or redness of the fauces, or glandular swelling. He appears more than usually animated, his countenance, especially his eye, is unusually bright, and his mind exhilarated. His skin at this time is not heated during the day, but rather harsh to the feel and drier than natural. To an acute observer with a nice ear, his voice will be a little sharper than usual, and if he cries for a time, the peculiar inspiration will excite alarm. On the second or third night the attack of croup commonly comes on, after a few hours sleep, the symptoms being a ringing cough, hoarse inspiration and great roughness of voice. If the patient dies, a membranous formation is found in the trachea, and more or less in the bronchial tubes. This is what all admit to be genuine inflammatory croup.

2. Without any noticeable illness whatever, a child suddenly wakes up in the night with spasmodic suffocating cough of the peculiar croupy sound, the same inspiration as in the former case and the same hoarseness. A drink of some kind is given; the next cough is less sonorous, but the croupy symptoms as before described remain. The case is usually relieved by an emetic and some stimulating application to the throat, both of which are kept for that purpose in almost every well-regulated family in the city, where there are many children under eight years of age. If not so relieved, the patient may die within twenty-four hours or less, or after a lapse of two or three days, or even a week. Where the disease terminates quickly in death, no well formed false membrane is seen but only mucus in the trachea more or less thick, and redness about the glottis. This is the form to which the term spasmodic croup has been given. Spasm of what? Of the glottis undoubtedly, and from what cause? From the presence of vitiated secretions, and undigested decomposed food in the stomach, it is answered, and how does this act? By sympathy? Now, this cannot either be proved or even rendered probable. It is true when the stomach empties itself by vomiting, the symptoms for a time at least, and often permanently are relieved, but vomiting does more than unload the stomach. It relaxes the system, reduces the action of the heart, determines the fluids to the skin, which possesses so remarkable an antagonism to the mucous surfaces—above all it induces a copious secretion from the fauces, and thereby unloads the congested vessels of the glottis. It is admitted that an acid state of the stomach often causes irritation in the pharynx, which thence extends to the posterior part of the upper portion of the larynx. In adults this is beyond all doubt, and in children it is every way probable. Is the impression of these

acid matters, eructated from the stomach or secreted in the pharynx, under particular circumstances, upon the larynx the cause of the sudden occurrence of croup? It would be difficult absolutely to disprove these propositions. In my mind they are not improbable, but on the other hand, admitting the connection between disordered stomach and croup, established as it is by the most extended observation, may it not be attributable in part, at least, to the fact that continued coldness of the surface is precisely the condition which fits the system, as well in childhood as in age, for the action of cold and moisture in producing inflammatory diseases?

But, setting aside these considerations, and under any view of the subject, what is the morbid condition of the glottis which gives rise to the croupy symptoms? If from cold it is inflammation, if from acrid secretions acting for more than a few minutes, it is and can be nothing else. There is, therefore, no spasmodic croup, if by spasm it is intended to exclude inflammation as a cause of that spasm.

But I am asked again how are the two kinds of croup above described to be explained pathologically. The answer to this query will appear in the classification of the forms of croup now proposed.

Under the term croup, properly so called, are included two affections, which may exist either separately or together.

1. The *cynanche trachealis* or *trachitis*, in which membranous exudation is more or less formed in the trachea before any affection of the larynx, and more especially of the glottis, takes place.

2. The *cynanche laryngea* or *laryngitis* or *glottitis*, in which the laryngeal or spasmodic symptoms occur first or exteriorly.

3. Between these two there are varieties of combination, and these constitute the great majority of the cases met with in actual practice. In the most pure case of the so called spasmodic croup, no practitioner can say beforehand that no fatal inflammation of the glottis will occur, or that no obstruction of the trachea by false membrane or solid mucus is to be apprehended.

Is the disease croup a specific disease? Is there any peculiarity in the inflammation which gives rise to that secretion in the trachea? Let us look to anatomy and physiology, and the observation of disease, and to dissections for answers to this question.

In the first place, between the most firm tubular form of false membrane and inspissated mucus and mucus of an ordinary consistence we see in dissection of croup every grade and variety. If specific, its character should be more marked.

When a child attempts to swallow hot water, the membranous exudation is produced in the posterior fauces and upper part of the larynx. Here then is an ordinary cause of inflam-



mation producing what some consider a peculiar and specific secretion.

This question has a bearing upon practice, because it is contended by some that the specific effect of mercury is the proper remedy for this specific secretion.

It remains for those who deny the specific character of the tracheal secretion to account for its existence there, rather than in the larynx and trachea. In the larynx it is more rarely met with, in the trachea it gradually becomes less tenacious, and more resembles ordinary or inspissated mucus. May it not be merely inspissated mucus in all cases? mucus inspissated by rapid desiccation? If a portion of mucus is left in the trachea, the increased rapidity of respiration, and the narrow calibre of the tube, must necessarily remove its watery particles in a doubly augmented ratio; less so in the trachea, because the same volume of air in proportion to surface does not pass by, and the air also is more charged with the moisture in its previous passage through the trachea—less so in the larynx, because that tube is larger. Rarely is the membrane seen upon the glottis, because death arises from spasm ere it has time to form on that irritable part. Rarely in adults, because in them the trachea is double the size it is even in advanced childhood, and because they exert a stronger volition to detach by hawking the first tenacious mucus that is adherent to the trachea.

The surface of the trachea is very unirritable. Where foreign bodies enter by accident, as when a tube is forced into it from an artificial opening, no coughing is induced unless by its rising up the glottis is touched. A small foreign body has been known to remain for years quietly lodged in one of the ventricles of the larynx. The trachea and the comparatively unirritable parts, are those in which inflammation may be going on for a considerable length of time, without exciting any very marked symptoms. This constitutes the true explanation of the two modes of invasion in croup.

Besides these three forms of idiopathic, primary, or true croup, the laryngeal, the tracheal, and the mixed—there are forms of secondary croup, such as occur in measles, scarlet fever, and more especially in the malignant ulcerated sore throat, the diphtherite of Bretonneau. This last occasionally occurs sporadically with us and is, I apprehend, very generally the disease which, under the term croup, carries off in quick succession two or more children in the same family. I have treated it successfully with calomel and opium, followed by wine whey, in conjunction with nitrate of silver, to the throat—but my experience is too limited for me to assume to instruct others in regard to its nature and treatment. The French writers do not appear to discriminate between this affection and croup, as known here and in Great Britain,

Before speaking of the proper medical treatment, I will say a few words on a point of Hygiene.

1st. What is the best method of bringing up children, with a view to their exemption from this disease?

Two systems are adopted for this purpose—one is to allow free exposure and exercise in the open air, except in the very worst weather. The children being well guarded with warm clothing, are not suffered to cease their exercise until they re-enter the house. The second is to confine them within doors, during the whole of the winter, and the early part of the spring. My observation leads me to think that although the first plan, if it is followed with great care, is the best, yet the second is more easily pursued, and upon the whole is the safest. 2d. Under what circumstances should especial precautions be taken, with a view to ward off the attack? A child between the ages of two and five years with catarrh and cough, however slight and unfrequent, is a fit subject for croup, and if that disease is prevailing at the time, an attack, after any exposure to cold and moisture, or any excess in eating, is almost probable. The child should be confined to the house and dieted.

The treatment of croup should be prompt and decided, for if left to itself, the disease would probably in general prove fatal. But although prompt and decided treatment is necessary, it does not follow that heroic treatment is always, or even generally required. But the existing symptoms must always be met by remedies adequate to subdue them. The great skill of an experienced practitioner is shown in determining what amount of active treatment is *essential* in any given case; how much is requisite to remove the threatening symptoms, and to induce a favorable change, and how soon he must recur to the more severe remedies, after the disease has been for a time meliorated.—*N. Y. Annalist.*

2. *Homœopathy.*—Dr. LINTON thus discourses of Homœopathy; we extract from an article on that subject:

We assert that Homœopathy, whatever of truth there may be in some of its speculations, is perfectly inert in practice; and if we fail in proving this assertion true, then facts are mere illusions; logic a humbug, and reasoning a farce. To proceed. In the first place, our disposition to try all things, has induced us to try "*Globules.*" We have used them to ascertain their *pathogenetic* effects; we have taken the sulphur, but it caused nothing like the itch, which was promised us; we have used the quinine without experiencing the slightest symptoms of a chill; the belladonna, and nothing like hydrophobia followed. This we did at the suggestion of a Homœopathic practitioner. We have also tried these articles on some friends, without the slightest result. We have used



the "globules" in affections which we were confident would *get well of themselves*. Here they were successful, the patient got well! But then we tried another experiment. We selected several cases which we felt confident would *not get well of themselves*, and these we subjected to the treatment of one who ranked high as a Homœopathic practitioner. The result was in every instance a complete and *triumphant failure*.

The following gives the author's opinion of the shaking, rubbing, and spiritualizing process:

But again say the defenders of small globules, *the rubbing—the trituration* of the medicines increases their power and activity. Some of them say that it spiritualizes matter to rub it! Hence they grind their medicines very fine, and shake the vial of drops—they rub about six minutes at each trituration, and shake about six times at each dilution, though Hahnemann says that he had to reduce his shakes, so powerful did six make it!!!!

Now, any one that is in danger of believing this monstrous nonsense, can easily test its truth or falsehood. A certain amount of arsenic will kill a dog—a small dose, say half a grain, will not hurt him. Give the dog then a half grain of arsenic, and watch its effects. Then take another half grain and triturate, and grind it, and rub it, until it is *spiritualized* and *strengthened* as much as it is possible by this process. Then dilute it, and shake it well *sixty times six*, and give to the aforesaid dog. If Homœopathy be true, it will kill him in a very short time; if Homœopathy be false, the dog will go about his business. An easier test would be to ascertain if shaking a teaspoonful of brandy would enable it to make a man drunk. It would do so if Homœopathy be true.

Why, if this principle were sound, then the apothecary might double his stock at an hour's warning, not by the difficult and expensive process of importing fresh medicines, but by the easy one of *shaking* what he had on hand.

The liquid that was worth but one dollar, the dose being twenty drops, would be rendered of double that value by a few shakes, which would so strengthen it that ten drops would suffice! Sailors and soldiers would find this principle of great value; they would put a vial of whisky in their pockets, and, by shaking it, have grog enough for a voyage or campaign! Nay, armies might subsist on a little portable soup, increased in power and spiritualized by shaking! What an invention for starving Ireland! what a great trade shaking would be if Homœopathy were not a humbug! Instead of endeavoring to accumulate, the world would sit down satisfied to *shake* what it has already gotten?—*St. Louis Med. and Surg. Jour. in Western Lancet.*

3. *Cases of Diarrhœa, with Emaciation, coming on after weaning, successfully treated with Creosote.*—Dr. MAYES details two cases under the above head. The first, a little girl 15 months old, suffered with diarrhœa, after weaning; the following account is given of the patient's condition at the time of prescribing;

"Pale, leucophlegmatic countenance; abdomen tumid and very hot, complaining of much pain under pressure; stools excessively foetid and dark colored, also frequent; constant harrassing dry cough; great emaciation, so much so that the integument on the extremities seemed sufficient for a second covering; no appetite at all, and some irritability of stomach; cold drinks could be retained, but every thing else was refused. This assemblage of symptoms was indicative of a fatal termination of the case, and that speedily, unless some powerful remedy could arrest the progress of the disease. *Prescription.*—℞ Creosote, 5 drops; loaf sugar, 1 drachm; gum arabic, 1 do.; water, 2 ox. Mix intimately. A tea-spoonful was administered three times daily; at the same time the tepid bath, medicated by an astringent infusion, was used two or three times daily; after a few days the cold bath was used, medicated in the same manner. In less than three days the beneficial effects of this treatment were perceptible in the improved appearance of the alvine discharges. Her amendment from this time was rapidly progressive. The last mixture made up for her was—℞ Creosote, 6 drops; loaf sugar, gum arabic, aa. 1 drachm; carbonate of iron,  $\frac{1}{2}$  drachm; water, 4 ounces.—Mix. The vial to be well shaken before measuring a dose. A tea-spoonful was directed three times a day. After using this mixture, no further medical treatment was thought necessary; but a nourishing diet and exercise advised."—*South. Med. and Surg. Jour.*, in *West. Lancet*.

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4. *Case of Premature Development of the Mammary Glands.*—We are indebted for the following facts to Dr. JOHN DAWSON, of Jamestown, Ohio:

To-day (July 30th) Mrs. M. presented her daughter to me for an opinion as to its condition. The child is a female, nearly three years of age. It has had good general health since its birth; is of light complexion, with fair hair and rather dark eyes; is of about the usual stature of children of its age, and is the only child the mother has ever borne. Some time since, its *mammary glands* commenced being developed, and they are now about the size of large oranges, apparently well proportioned, both of the same size, with *nipples* similar to those of young ladies at the age of puberty. Neither by inquiry of the mother, nor by my own examination, could I detect any other premature development either of mind or body.—*West. Jour. of Med. and Surg.*



5. *Congenital Dropsy—(Ascites.)*—This case was that of a female child nine weeks old. I saw it October 25th, 1844, when the mother informed me that, at its birth, the abdomen seemed to be unusually protuberant, and that shortly afterwards it became subject to paroxysms of restlessness and crying, for which anodynes were administered without producing any relief. At my examination the general system was not emaciated, nor was there any anasarca of the extremities. The skin was rather soft and moist. It sucked heartily, had more thirst than natural, and had a slight coat upon the tongue. The abdominal tumor was so great as to extend down over the pubis, and also upwards and backwards over the ensiform cartilage and false ribs.

I prescribed diuretic and purgative medicines, and directed iodine ointment to be rubbed on the abdomen twice a day. No amendment followed this prescription. The child fell into the hands of another physician, who tapped it and drew off a considerable quantity of water. It eventually, however, died.—*Ibid.*

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6. *A Case of Uncommon Acuteness of the Sense of Vision.*—There is living in this region a young man of 23 or 24 years of age, who is reported as being able to see, with his natural eye, *animalculæ* in common well and spring water. This faculty was noticed when he was some 15 or 16 years of age, by persons for whom he was at work, in consequence of his refusing very often to drink water handed to him, in which nothing could be discovered by common eyes. I made some experiments with him, enough to be satisfied that his case was no hoax; and did intend to have made more, but have lost sight of him, and suppose he has left the neighborhood. His complexion is fair; temperament sanguine; eyes blue, less than the common size, with very small pupils.—*Ibid.*

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7. *Practical Remarks on Congestive Fever.* By E. F. BOUCHELLE, M. D., of Columbus, Mississippi.—In perusing the last edition of Stokes and Bell's *Practice of Physic*—a work embodying many valuable principles of medicine with great experience and learning—I am forcibly impressed with the views of Dr. Bell, as almost coincident with my own, as it regards the efficacy of opium in the treatment of congestive fever. I have long been satisfied in my own mind, that the usual mode of treating congestive fever, the plan pursued by most of the physicians of the south west, is not only improper, but dangerous; as its direct tendency is to strengthen the disease, and hasten the stage of collapse. The views which I now entertain on the subject of congestive fever have been promulgated throughout the sphere of my acquaintance, since the summer of 1837.

It is perhaps unnecessary to advance, in detail, a theory of the disease in question; suffice, for all practical purposes, to remark, that all of the leading phenomena of the disease are referrible to derangement of the organic system of nerves, more particularly. The excitement of congestive fever is irritable excitement, and in most cases so excessive, that it soon sinks the system into collapse unless moderated.

Such being a *syllabus* of my pathology, it necessarily follows, that in its treatment I invariably call in requisition those remedies whose known tendency is to allay nervous irritation, tranquillize the system, and produce sleep. Such remedies are to be found under the class of *narcotics*, and in another *great remedy* belonging to no particular class, which the hand of a merciful and all-wise Providence has disseminated throughout the universe; a remedy equally accessible to the rich man and the poor man, as it abounds in all places, and can be procured "without money and without price." I allude to *cold water*. The most powerful combination, however, to prevent the recurrence of a paroxysm, when the disease observes a remittent or an intermittent character, is morphine and quinine. In the whole course of my observation I have never known the congestive fever to observe any other than the intermittent or remittent type; unless the constitution is so frail, or the disease so violent, as to destroy the patient in the first paroxysm, which it often does; moreover, it is a rare circumstance if an individual, with the most robust constitution, survives a second or third paroxysm. Most usually, during the paroxysm, I prescribe *laudanum* and cold water, which rarely fail to conduct the patient safely through; and during the interval, morphine and quinine, to prevent a recurrence. The following is the prescription usually observed:—℞ Sulph. quinine, grs. xxiv.; Sulph. morphine, grs. ij.; M. f. 12 pills,—to take one sufficiently often to keep up a slight state of stupor or narcotism; that is, every hour or two, *pro re natâ*.

I am unfriendly to large doses of quinine, and am certain that two or three grain doses repeated at intervals, will insure all the good effects of that potent salt, without incurring the risk of losing them; not only losing, but inflicting an injury to the nervous system. Our firm belief is, and that opinion is founded on experience, that, as an antiperiodic, two grain doses of quinine are as efficacious as larger doses; and that in the same proportion as we augment the dose, in the same or a greater degree do we diminish the specific action of the article; also, that its combination with a narcotic enhances its antiperiodic powers in an eminent degree.

There is a secret in connection with quinine which, probably, very few physicians have observed; that is, that its administration during the stage of excitement in fever is often hurtful, and at best uncertain; in order to insure a favorable



influence in such cases, we have only to combine it with an anodyne. It is rare that quinine will exert any other than a favorable influence during the hot stage of fever, provided morphine be blended with it. Its most common effect, under such circumstances, is to lessen the force and frequency of the pulse, relax the skin, and produce sleep. The above combination is an admirable prescription in the summer fevers attended with great gastric irritability,—it must be given in the form of pills. Another valuable combination, where the excitement is inordinate, is quinine, tartar emetic, and morphine,—provided there is no great nausea. The above refers only to summer and autumnal fevers, of open excitement.

Before leaving this subject, I will remark that 20, 60, and 100 grain doses of quinine are very common these days. However, such doses are not prescribed or if so, by *very few* of the scientific physicians of Mississippi and Alabama. In the meanwhile I will not presume to deny that peculiar modifications of disease may render *such doses* applicable in more southern latitudes. Generally speaking, these huge doses are given by that numerous class of mountebanks and impostors who infest our country; men who recognize no essential difference between the stomach of a human being and that of an ostrich; between the constitution of a man and that of a horse! Would to God that the prescribing of large doses of quinine was the only species of quackery practised in the West! Calomel, and other remedies, are given in equally as large quantities; to the success of which *energetic empiricism*, our numerous grave-yards bear melancholy though silent testimony, to say nothing of the thousands of constitutions literally destroyed by as *many anomalous diseases!*

There is a maximum and a minimum dose for every article of the materia medica—a fact which should never be forgotten in clinical practice—and when we transcend either degree, we either produce no effect at all, or we do mischief.

There is no class of remedies, however, whose dose is more variable than that of narcotics. Indeed, we can sometimes give them *ad libitum*, with very little effect; as we all know, that under certain states of the nervous system arising from excessive pain, the system can scarcely be composed by opiates. Who has not seen this verified in prescribing for acute gout, the passage of biliary calculi, spasmodic colic, tetanus, &c. &c.? One of these peculiar conditions of the system occurs in congestive fever,—as we are certain that during one of its paroxysms nothing short of mammoth doses will conduct the patient safely through, and prevent collapse; with extraordinary resistance to the usual influence of opiates, it argues the propriety and necessity of such remedies. I hope, for the sake of human life, and the honor of medicine, that the day will, ere long, arrive when physicians will

convinced that calomel and purgatives generally, French brandy and other stimulants, mustard cataplasms, blistering plasters, &c., are not the remedies for congestive fever, the endemic of the Mississippi valley, whose very name, in many places, is associated with all the horrors of the grave, in consequence of its great fatality. All purgatives, all stimulants, internal or external; all irritants—are injurious in congestive fever. So long as I pursued the plan of *correcting the secretions, and stimulating by brandy, camphor, camphor and quinine, ammonia, pepper, &c.*, I lost patients. But when, on the other hand, after much reflection, I had changed my pathology of the disease, and adopted the *cold water* and *anodyne* practice, my labors were crowned with success, and have been ever since. In truth, the most violent forms of congestive fever will as certainly yield to the anodyne treatment, as will a local inflammation yield under depletion. I do not regard quinine as a stimulant; it has tonic properties, and in combination with an anodyne, is the most powerful sedative in general use. (There are many sedatives very active, which are not used in the common routine of clinical practice.)

We have said nothing definite, as yet, about cold water in congestive fever, but will do so in very few words. How is the cold water used in congestive fever? Internally and externally; a pleasant remedy, and one which any patient will grasp eagerly and without much persuasion. I use the cold douche in clapse to arouse the system to reaction, which it will more often do, than any other means that I have ever seen essayed. I have seen many patients, as it were, moribund; cold and clammy skin, thready pulse, sunken features, blue finger nails and lips, great epigastric oppression, and breathlessness, rescued, as it were, from the grave, by the *magic influence* of the cold douche. The cold water is not less useful during the paroxysm, to allay general anxiety, distressing vomiting, thirst, and internal heat. I allow the patient to drink freely,—it gives great relief; it removes, in connection with adanum, irritation of the ganglionic nerves, upon which the veritable epigastric oppression and gastric irritability depend, and seldom fails to conduct the patient safely through the paroxysm. How much more rational such treatment is, and at the same time, how much more grateful to the languishing sick man, than the opposite plan of tormenting him *without ceasing* with heating stimulants and *blistering plasters*! How much more rational than the opposite *vile* system of cramming his stomach with horse-doses of calomel “to remove indigestion” of the *darkest* and *foulest* of all places, “*the venous plexus*”!!! Would to God that Mississippi and Alabama could be relieved of the curse of R. A. C. quackery! Oh! ye shades departed worth! ye ghosts of Hippocrates, Æsculapius, and Celsus, how long will ye endure such humbuggery! Oh!



"*venous cavity*"! Oh! calomel, and R. C. A. pills! inexorable monsters, who have slain your hundreds, why seek to demolish thousands! I am not jesting; no, I am serious.\*

But, for the purpose of illustrating the most rational practice in congestive fever, I will submit one of the most violent cases I ever saw in Mississippi.

*Case.*—A particular friend, of vigorous constitution, was seized about midnight on the 20th of September, 1845, with a slight chill, which was succeeded by vomiting, and profuse liquid evacuations from the bowels. I saw the patient about 9 on the 21st; his head was hanging over the side of the bed, and he incessantly vomiting or heaving; his features were sunken and pale; breathing rapid, and difficult from congestion of the lungs; pulse feeble and very rapid, almost imperceptible at the extremities; lips blue, tongue pale and moist; with a clammy exudation of viscid perspiration all over the surface. Indeed I was surprised to find my friend on the very verge of the grave: that he was sinking rapidly into a deadly collapse. He complained of great thirst and universal heat; he would cry out, "My God, I must have fresh air, or I'll die; I am burning up!" when the pulse was gone at the extremities, and the skin cold. The friends around implored me to stimulate him, and apply sinapisms to the extremities. I refused, and immediately went to work in my own way. I gave him 100 drops of laudanum forthwith, and in half an hour gave 50 drops more, which he drank. Seeing that the irritability of the system was so excessive, that the laudanum would not take effect, unless repeated at short intervals—in half an hour more I gave him 100 drops by enema.

In an hour the vomiting stopped—my friend drinking cold water by the pitcher full. He very soon became tranquil, and fell into a deep sleep, with his mouth and eyes half closed. The spectators around thought that he was dying; but I knew better, when I took hold of his hand and found that it was getting warm, and that the pulse was rising at the wrist. In the course of two hours more, my patient was under a full re-action; his skin warm and pulse full, beating eighty in the minute. He did not wake until sundown—when he *got up*, dressed himself, and *went about his usual business*!!

The next morning (22d) I entreated him to take to his bed, and commence with the quinine and morphine, to prevent a recurrence of the paroxysm, which would take place about midnight.—He declined, stating that he was well. However the poor fellow was seized again at one o'clock on the 23d. In two hours he was vomiting forcibly, with frequent liquid dejections from the bowels; great dyspnœa, and small and

\* I do not allude to Prof. Cooke; but to those who endeavor to treat the fevers of Mississippi, Alabama, &c., according to his theory. I respect the Professor, at the same time I am convinced of his delusion.

rapid pulse, with cold skin. At daylight I saw him, and gave the first dose, which was 100 drops of laudanum. Seeing that he became worse, complaining of indescribable epigastric heat and oppression, I repeated the dose, which had no effect, as he soon became wild and unmanageable. I ordered 100 drops more by enema, in starch; at the same time allowing him to drink freely of cold water, acidulated with citric acid, which he drank, in his derangement, with all the avidity of a famishing animal. He soon became cold from head to foot; *no pulse*, skin cold and bathed in a viscid sweat, lips blue, eyes sunken, and features shrivelled; breathing slow, and oppressed from congestion of the lungs. Indeed, the dyspnoea was so great, that he looked very much like a man suffocating. I ordered 100 drops more in enema, and applied two small sinapisms to the neck, one over each pneumogastric nerve, recollecting to have read of such things being useful in asphyxia, &c. In a short time the patient seemed more quiet,—drinking freely of cold water occasionally. At this juncture, a medical friend of experience, formerly of the United States Navy, stepped in and pronounced my patient *in articulo mortis*; however, before he had been present one hour, the pulse was rising at the wrist, and the skin began to get warm, and the patient to breathe with more ease. In two hours more my patient was lying in a profound sleep, with hot skin and good pulse; with the warm sweat standing in great drops on his forehead. He awoke late in the evening, very much prostrated indeed. In a short time I put him under the morphine and quinine, keeping up slight narcotism until the next period had passed in safety; when I gave a little blue pill occasionally, to restore the secretions. It is proper to mention here, that the use of laudanum and quinine, as above recommended, almost always leaves the system in a torpid condition, as manifested by a coated and dry tongue; so that convalescence will be tedious without the occasional use of a little blue pill, &c.

The patient whose case I have given, cannot bear the smallest quantity of laudanum when well. I could, if necessary, adduce other cases, showing conclusively that laudanum, cold water, and quinine, are the remedies for congestive fever. It is probable that the above patient would have died, had it not been for the plasters (size of a dollar) to the neck; or it may be that the laudanum had not taken effect until then.

The treatment which has just been detailed in a detached and hurried manner, with some little modification, is applicable to any form of summer and autumnal fever in Mississippi. There is no prescription better, in common cases, to prepare the system for quinine, than morphine and tartar emetic in solution. Ordinary febrile excitement can resist its influence but a few hours. In conclusion.—There is no class of reme-



dies which exert so favorable an influence in all of the fevers of this latitude, as the class of narcotics.—*West. Lan. in Bull. of Med. Science.*

7. *On a Remedy (the Ambrosia Trifida) for Mercurial Salivation.*—By WM. ROBERTSON, M.D., of Harrodsburgh, Ky.

One of the most common plants on our farms, possesses, as I have discovered, more prompt and efficacious remedial powers, in the cure of mercurial salivation, than any article I have ever seen tried for that loathsome disease. During a practice of forty years, I have seen the disease in all its forms, and various remedies employed for it, but do not recollect to have ever witnessed an obvious curative influence exercised by any of them.

The remedy I have lately adopted, in every case in which I have tried it, has proved a speedy and effective cure, relieving the patients in from six to eight hours, removing every symptom of salivation. However, I would observe, that all these cases have been of a mild character, or in the incipient stages. What influence this remedy would exert in those violent cases of the disease occasionally met with in practice, attended with extensive swelling, ulceration, sloughing, and falling out of the teeth, I am unable to say, having met with no such case since my adoption of the article; but I think it probable that such a case would call for the use of other remedies. Nevertheless, the use of this remedy, in the commencement of such cases, would, very probably, arrest their progress, and prevent their attaining an aggravated form. In this view, I am sustained by the result of a case that came under my notice within the last month. In this case, the power and influence of this medicine, to control mercurial salivation, were most strikingly exemplified. It was that of a female, aged thirty-five, in the eighth month of her pregnancy, of delicate frame and phlegmatic temperament, and predisposed to hysteria. She was advised, for habitual costiveness and torpid liver, to take one or two doses of calomel, milder purgatives having procured only momentary relief. The calomel was retained about thirty hours, although followed by a large dose of castor oil, in ten or twelve hours. The consequence was, a violent attack of mercurial salivation. Within twenty-four hours from the attack, some unusual symptoms having manifested themselves, the family became alarmed, and I was hastily called to visit her, five miles in the country.

The bowels having been evacuated by injections, I found the patient without fever, and only complaining of the salivation. The gums and mucous membrane of the mouth were inflamed, a little swelled, and had a soft, puffy appearance; the whole surface was covered with thick viscid mucus,

adhering with unusual firmness, and so offensive in smell and taste to the patient, that every effort to discharge it was attended with nausea and vomiting; a putrid effluvia was exhaled with every breath, along with the mercurial fœtor, perceptible and offensive to the bystanders. It was this symptom that had alarmed the family: they concluded that mortification had already taken place. All perception of taste had ceased, and food and drinks were rejected with disgust. The putrid smell perceptible in the breath evidently proceeded from the viscid mucus, adhering to the mouth and throat, acquiring a putrescent tendency, from being detained there long after the secretion was thrown out from the secreting glands, &c. This was proved by an examination of the secretion; when discharged (as it was with great effort) into some vessel, the same putrid smell was present, and the mucus was about the consistency of the white of an egg.

This case of pure mercurial salivation—I say pure, because this disease is very generally accompanied by other diseased conditions of the system—afforded me the best opportunity I had seen of testing the powers of the remedy. I immediately procured from an adjoining field a large handful of the green leaves; poured on them in a suitable vessel one quart of boiling water; as soon as it was cooled sufficiently, the patient was directed to wash the mouth and throat freely every half hour; nothing else was used except the common soda powders; they were given every three hours, in an effervescing state.

I remained with the patient six hours. By that time the mouth and throat were cleared of the thick viscid mucus; the nausea and vomiting had ceased entirely; the natural taste was nearly restored; the patient felt greatly relieved, and partook of some light food with relish. The next day she was still improving and comfortable, and on the third day, within forty-eight hours from the time of commencing the use of the remedy, every symptom of salivation was removed, and the female was engaged in her usual domestic vocations.

I will give another case, which occurred within the last two weeks, because there is a fact connected with it, giving rise to an opinion that the remedy may prove beneficial to inflammation in mucous membranes, arising from other causes than mercury. A gentleman, from bathing in a river, took cold. He called on me, complaining of headache, sore throat, a stiff neck. He was bled; some active cathartic pills, containing a small quantity of calomel, were given, with directions to use them so as to keep the bowels in a solvent condition; to use a light diet, and apply vol. liniment to the throat. Three days afterwards he called on me, to inform me that the pills, as used, had not been active enough, and that he was salivated; the sore throat still continued without abatement.



I gave him a handful of the fresh leaves, and directed him how to use the infusion. He afterwards informed me that twenty-four hours' use of the remedy removed every symptom of salivation, and that the sore throat had also been cured. He further informed me, that at the time he received the remedy, he felt so badly about the mouth and throat, that he did not expect he would be able to preach for a week (he is a minister of the Gospel); but that, after using the remedy, he found himself as able to preach at the end of two days, as ever he had felt in his life.

May not this remedy prove beneficial as a local application in leucorrhœa, prolapsus uteri, and gonorrhœa, also in various affections of the throat? I shall certainly, in future, extend its use to diseases of this character; and I hope that practitioners of medicine, especially those residing in districts where the plant abounds, may be induced to give it a trial, and report to the profession the result of their practice.

This plant is known in all parts of Kentucky, and is known to all our farmers under the popular names of horseweed, richweed, horsemint, and horsecane; but it is an entirely different plant from that described in the appendix to the fourth edition of *Wood and Bach's Dispensatory*, at page 1137, under the title of *Collinsonia Canadensis*, and vulgarly known by names similar to those applied to the Kentucky plant.

I was induced to make trial of this plant in mercurial salivation, from the fact that this plant, when given to a horse affected with a disease called slabbering, effects a complete cure of the disease in a few hours.

This salivation, or slabbering disease in the horse, doubtless proceeds from some diseased condition of the salivary glands. About two years ago, passing a field where the plant was abundant, its effect on the salivated horse occurred to my mind, and immediately a question suggested itself—that if this remedy can exert such speedy and such surprising effects on the salivary glands of the horse, may it not possess properties that would render it useful and beneficial in salivation in the human subject? Under this impression, I resolved on a trial of its powers in the first case that should present itself. The trial convinced me that it possessed powers for relieving and curing mercurial salivation, greatly surpassing any means I had hitherto used; and subsequent experience has firmly established that conviction.

The effects produced by the local application of the infusion in the human subject, induces me to think that the effect it produces on the horse, does not arise from the plant taken into the stomach and reaching the diseased glands through the medium of the circulation, but that the direct application of the juice of the plant, while the horse is chewing it, effects the cure. It has so happened, that all the cases in which I have

had occasion to use the remedy, have occurred during the spring, summer, or fall, when the plants are in a green state. I have the dried leaves, but have never used them; whether the leaves lose any of their virtues by drying, I am unable to say. I have never heard of the plant being used, in any shape, as a medicine, until I tried it as a remedy for salivation.

[Dr. Robertson was polite enough to send us, with the above communication, some dried specimens of the above plant, which we submitted to our friend, Dr. R. E. Griffith, an able botanist, from whom we have received the following note:—

Dr. Hays:—Dear Sir,—The plant you left with me appears to be *Ambrosia Trifida*, though, from the absence of flowers or fruit, it is difficult to decide with absolute certainty; at the same time, the character of the leaves and stem are so striking, as to leave little doubt on the subject.

Torrey and Gray (*Flor. Nor. Amer.*, ii. 290,) describe it as follows:—"Stem tall and stout, hairy, rough; leaves scabrous and hairy, deeply three-lobed; the lobes oval, lanceolate, acuminate serrate; the lower leaves often five-lobed; petioles narrowly winged, ciliate, racemes often paniculate; fruit (fertile involucre) turbinate-obovoid, with a short conical pointed apex, six ribbed, the ribs terminating in as many cristate tubercles.

"Low grounds, and along streams, Canada to Georgia, and west to Louisiana and Arkansas. Aug.—Sept. annual."

It is also noticed by Riddell (*Synop. Flor. West. States*, No. 1014) as everywhere abundant: he gives the vulgar name of bitter-weed to it. Rafinesque (*Med. Flor.*, ii. 190) speaks of it, and says that it is called horseweed, one of the names given by Dr. Robertson, and states that the species of ambrosia are antiseptic.

The *A. Trifida* has not, as far as I can ascertain, been employed as a remedial agent, though some of the other species have been used, with some success, as febrifuges. Should the present plant, on a more extended trial, be found to be as successful in cases of mercurial salivation as is shown by Dr. Robertson, it will be a very important addition to the *materia medica*. It is to be found in abundance in the vicinity of Philadelphia. It is probable that the *A. Elatior*, or rag-weed, so common in all our fields, would prove still more efficacious, as its sensible properties are much more developed than in the present plant.

Yours, &c.,

R. E. GRIFFITH, M.D.]

*Am. Jour. of Med. Science*, in *St. Louis Med. & Surg. Jour.*

DR. JOHN B. BECK, on *Emetics in Children*.—The name of the Brothers Beck has been rendered classical in American



literature, by the great work upon Medical Jurisprudence, composed by them in company. Our own fellow citizen, Dr. John B. Beck, has long been known to the profession here and abroad, as the able professor of Materia Medica in the College of Physicians and Surgeons in this city; as a man of vigorous intellect, a scholar of extensive learning, a physician of great sagacity, and the author of many valuable papers indicative of sound judgment, and possessed of the highest practical value. His essay on Laryngitis (see his Medical Researches) as we will hereafter show, contains much that has been appropriated, without acknowledgement, by subsequent writers on this disease; and no abler argument has yet appeared upon the non-contagiousness of yellow fever, than that republished in the same volume. In the September number of our cotemporary, the N. Y. Journal of Medicine, Dr. B. has published as a sequent to a previous one on the use of opium in early age, a paper upon the "effects of emetics in the young subject," so characteristic of its author, so interesting, so practically true and important, that we shall make not the slightest apology, for laying before our readers very copious extracts.

"With the exception of cathartics, there is no class of remedies more generally resorted to in the management of the diseases of children, than emetics; and in a large number of cases, there is certainly none more useful. They are active agents, however, and like all agents of this description, are capable of doing good or evil, according to the manner in which they are given.

"In a previous paper, I endeavored to point out how the effects of opium were modified in the infant subject. On the present occasion I propose to pursue a similar investigation in relation to emetics.

"As it regards *the mere mechanical act of vomiting, young children perform it more easily than adults.* This is a fact which has long been observed by practical men, and about which there can be no question. It is, no doubt, a wise provision of the Creator, to enable the child to relieve itself from the effects of an overloaded stomach, to which it is so constantly liable in the early period of its existence. Although the fact has thus long been known, and the intention of it is obvious, yet the reasons have not been so well understood. They appear to be the two following.

"In the first place, from the experiments of Majendie, in relation to the manner in which vomiting is performed, it would seem that, in that process, the stomach is in a great measure passive, and that a certain degree of pressure upon it from the surrounding organs is absolutely necessary, before vomiting can be accomplished. This pressure is made by the con-

traction of the diaphragm from above, and of the abdominal muscles from below, upon the viscera surrounding the stomach. As a matter of course, the pressure thus exerted will be greater or less, according to the volume of the viscera. Now it is well known that in the early periods of life, the abdominal viscera have a much larger proportional size than they have in the adult. This is particularly the case with the liver. In early life, therefore, during the act of vomiting, the pressure made upon the stomach by the surrounding organs must necessarily be greater than it is in the adult, and in consequence of this, the greater the ease with which the organ is evacuated.

“In the second place, the shape of the stomach in the infant is more favorable to the easy evacuation of its contents. That the stomach undergoes successive changes in its shape, from birth onwards, is a fact, which although but recently investigated, is, I believe, well established, and for its elucidation we are indebted to the labors of Prof. Shultz, of Germany.

“The foregoing considerations would seem to account very satisfactorily, both physiologically and anatomically, for the fact with which we started, that the mechanical act of vomiting is performed with greater ease in the child than in the adult. If vomiting, then, be induced in a child by mild agents, the whole process is performed with greater facility than by the adult. This, then, is the *first* peculiarity in the effects of Emetics in children.

“If, on the other hand, *Emetics of an active and debilitating character, and which produce much nausea, be used, the effects are more uncertain and energetic than in the adult.* The articles to which I allude are the antimonial emetics, and these are frequently hazardous to young children, and that, too, when used in doses not peculiarly large. The immortal Sydenham seems to have been fully aware of this fact. In speaking of the continued fever of 1661, 2, 3, and 4, he says, ‘it has often been a difficulty with me, when called to infants and children in a fever, and observing an emetic indicated, whereby they might have been preserved from danger, that I durst not give them this infusion (*crocus metallorum*), for fear of a bad consequence.’ \* \* \* \* \*

“I have known a case occurring in this city in which the thirtieth part of a grain of Tartar Emetic given to a child a year old, labouring under croup, produced such severe and protracted vomiting, together with general prostration, as to require stimulants to save life. Some years since I was called to see a child about three years old, who had been attacked with scarlet fever. The symptoms at first were mild, and no danger was apprehended in the case, when it was suddenly taken with such alarming symptoms of prostration as to call for a consultation. On inquiry, I found that the attending



physician had been prescribing small doses of Tartar Emetic. Notwithstanding the use of stimulants, the child died in an hour or two after I saw it. I then suspected, and have since been confirmed in the correctness of the suspicion, that the medicine had no little agency in bringing about the fatal result. The child was naturally delicate, and there certainly was nothing in the symptoms of the case to account for such a termination.

“The foregoing facts would seem sufficient to show the *uncertainty* as well as *energy* with which Tartar Emetic operates on the young subject, and the causes are obvious. \* \* \*

“While Tartar Emetic operates in this way on the young subject, Ipecacuanha is never known to be followed by any injurious consequences. To the young infant it may be given, not only with impunity, but frequently with the greatest benefit. Why this is so must be manifest, if we reflect for a moment upon the peculiar properties of the two articles. Although both are emetics, yet they differ widely from each other in many important respects. The one is a mild article, limited in its operation to the stomach, upon which it never produces anything like local irritation, even when given in large doses. The other, besides acting as a powerful emetic, is a direct sedative capable of producing general prostration, and in some cases acting as a local irritant to the stomach and bowels, showing itself in excessive vomiting and diarrhoea. \* \* \*

“Now the due understanding of these peculiarities is evidently of the highest importance in the use of Emetics in children, and upon the mind of the student and young practitioner especially they cannot be too deeply impressed. From the manner in which medicines are treated of in classes, in most of the books of *Materia Medica*, and in the lectures on that subject, the student is insensibly led into the belief of a greater resemblance between them than really exists in nature, and it is only after he has had some experience of his own, that the error is corrected. He cannot, therefore, too early in his career learn that all classifications are artificial—not founded in nature—that medicines are arranged in classes, merely for the sake of convenience; not because the articles under each class are precisely alike, but because they resemble each other in some one or more important feature, while in other respects they differ greatly. No two medicines, even in the same class, are precisely similar, and in acquiring a knowledge of them, the study of the points of difference is even more important than those in which they resemble each other.

“From the foregoing considerations, it appears to me that some inferences of practical value, to the young practitioner at least, may be deduced.

“1. As a general rule, we need not be afraid of vomiting the youngest child, provided the means used be mild—such

as ipecacuanha, &c. The mere act of vomiting is attended with no danger, while the remedial agency of an emetic is one of great power and value.

"2. The vomiting induced by the preparations of antimony ought to be resorted to with great caution in very young children, and should never be used except in those cases where a sedative effect is required, and can be borne with safety.

"3. The *continued use* of Tartar Emetic in young subjects, cannot be too specially guarded against. It is in this way, probably, that it is so apt to prove injurious. A single dose, even though it vomits very freely, may be borne with comparative impunity, while its repetition may keep up nausea and intestinal irritation, so as to cause injurious prostration. This is very likely to happen in cases of a chronic character, like whooping-cough. Although mild emetics are among our best remedies in this disease—and where the subject is old enough, a single emetic of antimony is frequently exceedingly beneficial—yet the repeated use of antimonial emetics, as is too often the case, appears to me to be a great error in practice. It is not indicated by the nature of the symptoms, and violates a great rule which ought always to be observed in the management of chronic cases, and that is, not to break down unnecessarily the strength of the patient. Again, in ordinary catarrhal affections in children, a good deal of mischief is frequently done by the continued use of expectorant mixtures containing this active article. The Hive Syrup of Dr. Coxe, which is now in every family, and is given on the slightest occasion to infants, without even consulting a physician, has, I am convinced, done a great deal of harm. I say this without wishing to undervalue this preparation. In proper cases it is really a useful article, but persons out of the profession ought to know that its principal efficacy is owing to the quantity of Tartar Emetic which it contains, and that the indiscriminate use of it in cases where mild articles are required, must be injurious.

"4. As the effect of Tartar Emetic on the system cannot always be measured by its emetic operation, even in the adult, this fact ought to serve as a caution against the too common practice of giving repeated doses of it to produce vomiting in children, when they happen to be narcotized. While it fails to vomit, it may still operate as a poison to the system. In all cases of this kind, the proper method of treatment is, not to push the emetic, but to endeavor to restore the sensibility of the patient, and then sometimes vomiting comes on at once.

"5. In using Tartar Emetic in children, especial regard should be had to their constitutions. In those naturally delicate, and especially where the scrofulous diathesis exists, it



should never be used if it can be avoided. Prostration is much more apt to ensue in them, and where the article is persisted in for any length of time, is sure to do harm.

"6. It is perhaps hardly necessary to say that if Tartar Emetic be an article of such danger, the younger the subject to whom it is given, the more likely it is to do harm. In children under a year, I should say, as a general rule, it ought never to be used."—*N. Y. Annalist*.

9. *Malpractice in Midwifery. Alleged Death from Hæmorrhage.—Charge of Manslaughter against the Medical Attendant.*—An inquest was held at Towcester, on Sat. Aug. 15th last, to inquire into the circumstances attending the death of Ann Smith, who died shortly after her confinement, from the alleged improper treatment and neglect of her medical attendant.

It appeared from the evidence of the witnesses, that the woman was taken in labour of her first child about the middle of the day on Friday. Mr. G—— (M.R.C.S.E.) was sent for, and arrived in about an hour; he told them she was going on well, and that he would return in a short time. He did so in about three quarters of an hour, and remained within call, (but not in the patient's room.) He was several times requested to go up "to help the woman," but did not until immediately before the birth of the child, which took place about six o'clock. He tied and cut the cord in the usual manner, and shortly afterwards, in making traction, broke it off at its attachment to the placenta; a gush of blood followed, but the nurse could not speak with confidence as to the quantity. Mr. G. then gave the patient a dose of tincture of opium, telling the friends there was something more to come, and left, promising to return between eight and nine o'clock. A short time after Mr. G. left, the patient became very faint, and one of the women noticed a pool of blood on the floor under the bed. A messenger was dispatched for Mr. Collier, surgeon, who attended without delay, and found the patient exsanguineous, and in a state of syncope. He immediately removed the placenta, and ordered wine and brandy to be administered. The hæmorrhage ceased after the extraction of the placenta. Mr. Collier then sent home for ammonia and other stimulants; but death took place before the return of the messenger.

In answer to questions from the coroner and some of the jurymen. Mr. Collier said, that he considered it very improper for a medical man to leave a patient while the after-birth was retained, and that, on breaking the cord, he would directly have proceeded to extract the after-birth. The administration of the laudanum at that period was decidedly bad practice, the tendency of its operation being to prevent further contractions of the uterus, which might have effected the expulsion

of the placenta naturally. From the cord being torn off at its attachment to the placenta, he believed that an improper degree of force had been employed in the traction.

The coroner then said that "the jury had heard the evidence, which he thought he need not repeat, and it was now their duty to say what was the cause of death, and to decide whether any or what amount of culpability attached to the medical attendant, Mr. G."

In about half an hour the jury returned the following verdict:—"That the cause of the death of Ann Smith was excessive hæmorrhage, and that occasioned principally by the neglect and improper treatment of her medical attendant, Mr. William G."

The coroner said that this did not amount to manslaughter, and consequently he had no authority for proceeding further.

On the following Monday, the husband of the deceased entered a charge of manslaughter against Mr. G. at the Towcester Police Court.

The superintendent of police took Mr. G. into custody, and on Tuesday brought him before the sitting magistrates. The evidence was nearly the same as at the inquest.

The legal adviser of the accused commented strongly on the fact of there being no hæmorrhage, and the woman appearing very comfortable at the time Mr. G. left her. He went on to suggest the probability that the woman's life might have been saved had the women been attentive to the case, and sent for the surgeon at the time the hæmorrhage commenced, instead of waiting till its existence was accidentally discovered by one of them seeing the blood on the floor. It had been proved that Mr. G. had promised to return between eight and nine o'clock, and it was a well-known fact, that formerly medical men were constantly in the habit of leaving their patients for some hours when the after-birth was retained, waiting for the powers of nature to accomplish the delivery, and he believed that it was frequently done now.

After consulting together for a quarter of an hour, the magistrates requested Mr. R. Watkins, surgeon, to give an opinion on the case. Mr. Watkins, having been sworn, confirmed Mr. Collier's view of the case, and detailed the usual mode of treatment under like circumstances. He had never left a midwifery patient till after the removal of the placenta: it was not usual, and he would not do it under any circumstances. If his attendance were required at a second midwifery case, he would not leave the first until the placenta was removed, even though no hæmorrhage had taken place. He was aware that, formerly, in many cases the patient was left before the after-birth came away; he had read of a fatal case, which occurred in the practice of an eminent physician from this cause.



After a lengthened consultation, the magistrates decided, that, although great neglect and improper treatment had been proved, the evidence was not sufficient to support a charge of manslaughter. The case was accordingly dismissed.—*Lancet*, in *Bull. of Med. Science*.

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10. *On the Non-Mercurial Treatment of Syphilis.* By DR. SCOTT.—Dr. Scott made some observations on the importance which attaches to the history of Syphilis. No subject could be more full of interest, or prove more clearly the necessity of strict investigation into what are considered the most established doctrines in medicine. Thirty years since there was no doctrine in the profession which was considered to be so well founded as the treatment of syphilis by mercury. In England none presume to differ from the opinion of John Hunter, that the disease was incurable without mercury, and not only that the medicine was required to remove the disease itself, but that to cure the disposition to it, and to secure the constitution from its ravages, an extended course of mercury was required. Sir Benjamin Brodie still retains this opinion; and Dr. S. observed that he would not have probably called the attention of the Society to this subject, had he not observed, in the lately published Essays by Sir Benjamin, some remarks, which, from so high an authority, appeared calculated to lead to what appeared to him an injurious line of practice. Every now and then a dissenting voice had been raised against the mercurial doctrine, but the profession in general adhered to the opinion of John Hunter.

Heberden considered it as one of the four specifics discovered in medicine. Allusion was made to the remarkable paper of Dr. Fergusson in the *Med. Chir. Trans.* of 1813, and the observations made by him on the disease, as it appeared in Portugal, and the opinion of the German physicians.

Sir Benjamin Brodie, in mentioning the work of Mr. Abernethy on Pseudo-Syphilis, considers that the illogical conclusions and extraordinary assumptions contained in it, have much diminished the value of this part of his writings. This work of Mr. Abernethy Dr. S. considered a most useful one, as having led the way to the investigation, from which such important results have been derived. Dr. S. then related his personal experience. In 1813 he was placed for a short time in Colombo, in charge of the venereal wards, in which the cases were all treated with mercury. Many of them he found were well in a few days, others in five or six, others in three weeks; periods too short to warrant the conclusion that they were venereal; they were therefore set down as cases of pseudo-syphilis. The number of these cases increased with the field of experience, and in a few years the use of mercury was gradually resigned in almost every case of local disease.

The secondary symptoms were few and slight, and never required an extended course of mercury. The same plan of treatment was also adopted with them, and in a few years Dr. Scott, then garrison surgeon at Point de Galle, entirely abandoned the use of mercury. The inference which he drew, however, was, not that the venereal disease was curable without mercury, but that the real disease did not exist in Ceylon. Dr. S. then described the miserable victims who were constantly found in military hospitals at that time, affected by extensive ulcerations, nodes, &c., who furnished a considerable number of the invalided, and many deaths. Since mercury was abandoned, such cases have disappeared from the hospitals. In 1818 and 1819, Dr. Scott became acquainted with the results of the investigation which had been carried on in England, and since that time had entirely abandoned the use of mercury as a specific. He had found many cases in which it was required as an alterative. After some remarks on laryngeal ulceration, diseases of the bones, &c., which are still met with in practice, Dr. S. stated that he considered every case of local disease curable without mercury, and that under such treatment the secondary symptoms, when they did occur, were slightly and easily managed. In fact, the disease ran a certain course, modified by peculiarities of constitution, and required only the treatment adapted to such modifications. Dr. S. drew a contrast between two cases of secondary symptoms which had been under his care at the same time, of young men of the same age, and of irritable and unhealthy constitutions. Both were severe cases, but in one the patient recovered in two months, while the other, after many narrow escapes, could only be pronounced cured after the lapse of a year from the first attack.

Dr. Maclagan expressed his satisfaction that Dr. Scott coincided in the views Dr. M. had long entertained on this subject. His confidence in mercury as a specific in syphilis had been first shaken when, after he was a graduate in medicine, he attended for some months the Lock Hospital in London, under Mr. John Pearson. There, every variety of form in the disease presented itself, but in very many cases seemed to be aggravated, rather than benefited, by the mercurial treatment; and though Mr. Pearson, in his lectures, and in his conversations with his more advanced pupils, still advocated the necessity for mercury in the cure of syphilis, he often expressed his doubts whether in many constitutions the use of mercury had not been more injurious than beneficial. While afterwards serving with the army in the Peninsula, and in charge of a Portuguese brigade, he had also been much struck with the apparent success which attended the treatment of the primary forms of the disease in the Portuguese soldier, by topical remedies alone, or merely with the additional use of Lis-



bon diet and drinks, and sometimes without either. He saw none of those cases of secondary symptoms in an aggravated form, to which his late lamented friend, Dr. William Fergusson, has alluded in his paper in the Transactions of the Medico-Chirurgical Society of London; but Dr. M. was then disposed to attribute the success of the non-mercurial treatment among the Portuguese to some peculiarity in the climate, and in the constitution and habits of the natives, which he afterwards had occasion to remark in a very different disease, Traumatic Tetanus, which, with few exceptions, assumed a less fatal form among the Portuguese wounded than among the British. On his return to Edinburgh, after the peace, Dr. M.'s attention had again been directed to the subject by the opinions long expressed by his early teacher Prof. Thomson, and by the opportunities of seeing the practice in the Dépôt Hospital in Edinburgh Castle, under Dr. Thomson's charge, as well as in that, and in Regiment Hospitals, under Dr. Hennen, Mr. Johnston, and Dr. Bartlett of the 88th regiment, the latter of whom published an excellent Thesis, at his graduation, on the non-mercurial treatment. This treatment had also been adopted in the practice of Staff-Surgeon Guthrie, and in that of Mr. Rose of the Coldstream Guards, and since very generally and successfully throughout the army. Since 1818 Dr. M., with a few exceptions where the patients' scruples afford full explanation, demanding its modified use, has adhered to the non-mercurial plan of treatment both in dispensary and in private treatment, and in no one instance has had reason to regret it. Many who were then so treated are his patients still, fathers of families enjoying, as well as their offspring, excellent health, and without the occurrence in the period that has elapsed of any secondary symptoms of an aggravated form. On the other hand, he has seen too many cases where the use of mercury to its full extent has been productive of constitutional injury of the most serious character.

Dr. D. MacLagan alluded to the success which attended the practice of Dr. Fricke in Hamburg, and Professor Krukenberg in Halle, in corroboration of the benefits of a non-mercurial system of treatment.

Dr. Bennett stated, that the last account of Dr. Fricke's practice, with which he was acquainted, is to be found in Sir Alexander Crichton's Commentaries on Medicine. This treatment had been tried on a large scale in the various garrisons in France, Germany and Sweden, and reports had been given to the various governments, amounting altogether to upwards of 80,000 cases, the general results of which were quite in accordance with the experience of Dr. Scott. He thought that one of the best evidences of the non-mercurial treatment existed in the fact, that those dreadful secondary

and tertiary cases which were formerly so common, are now seldom met with, and that pathological specimens of syphilitic bones, although common in museums, are at present scarcely to be obtained.

Dr. R. Mackenzie was of opinion that the observations which had been made were directed rather against the abuse than the use of mercury. As surgeon to the Lock Hospital of Edinburgh, he had seen many cases where the sores, however obstinate, had at once improved in character as soon as the constitution was affected with the drug. He alluded to two cases especially, in which this was observed, where mercury was given for iritis, but in which obstinate chancres on the genitals also began to heal as soon as the medicine produced its physiological effects.

Dr. A. D. Campbell stated that mercury was also necessary in the syphilitic eruptions of children.—*N. Y. Journal of Med. and Collateral Sciences.*

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11. *Case, showing with what Caution Speculative Chemical Testimony ought to be received.*

TO THE EDITOR OF THE LANCET.

Sir,—Knowing the readiness with which you always give publicity to facts, the propagation of which may be of essential service, and especially those connected with the medical profession, I take the liberty of enclosing to you for publication, under the above heading, the following particulars, which came under my observation at the trial of Mary North, at the Surrey Assizes, at Guildford, on the 1st Nov. on a charge of murdering an infant, named Mary Ann Barker, on which occasion I acted as attorney for the prisoner. The chemist alluded to was Mr. Alfred Swaine Taylor, lecturer on medical jurisprudence at Guy's Hospital; and the surgeon was Mr. Tatham, of Wandsworth. From experiments which I had previously made, in order to convince my own mind, I became aware of the difference in colour which would arise upon mixing the ingredients in a different order; and I instructed Mr. Locke, my counsel, to insist upon the experiment being repeated in court in the manner it was. The girl was acquitted, I do not hesitate to say, in consequence of it.

I have the honor to be, Sir,

Your obedient Servant,

JOHN J. HARRINGTON.

At the recent trial of a young woman, on a charge of the murder of an infant, by administering vitriol to it, the prisoner's defence rested entirely upon this question,—whether sulphuric acid, sugar, and water, mixed together in certain proportions; and aniseed, sugar, and water, mixed together in like proportions, would in point of color, a few minutes after-



wards, produce a similar, or a somewhat similar appearance. The girl's life undoubtedly hung upon the result. It was the only link wanting to establish her complete defence. If the same result as to appearances followed upon the mixing both sets of ingredients, it established the girl's innocence. If a palpably different color and appearance were the result, that must go very far towards establishing the presumption of her guilt.

The question was put to an eminent surgeon, and his answer was, that they would produce similar, or nearly similar, appearances. After he had given his evidence, and whilst the trial was proceeding, a doubt arising in his mind, he left the court with one of the most distinguished chemists of the day, also a witness at the trial; and they together made the experiment. They returned into court, and the surgeon, in a state of excitement, requested the judge to allow him to correct his testimony; for he found, upon trial, that the two mixtures produced very different appearances: and he held up, in court, two wine glasses, one with the aniseed mixture, which was of a yellow color—the other with the sulphuric acid mixture, which was intensely black.

He was then asked by the counsel for the prisoner in what order he mixed the ingredients producing the black appearance; and he replied, the sulphuric acid first, then the sugar, and then the water; and he was then requested to repeat the experiment in court, putting first the sulphuric acid, then the water, and then the sugar. What was the consequence? Why, instead of turning black, it remained of a yellow color, and as nearly as possible resembled the mixture of aniseed, &c.

Had the experiment not been repeated in court, in the order of mixing the ingredients in which it was there repeated, the girl, in all probability, would have been hanged!

The quantity experimented with was about a tea-spoonful of sulphuric acid to two of water, and a small piece of sugar.

\*\*\* Mr. Harrington is entitled to great credit for the tact and ability which he displayed in this case. The life of the innocent accused person was saved by the sagacity of the attorney, and not by the eloquence of the counsel.—ED. LANCET.

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*Subnitrate of Bismuth in Gastralgia.*—Dr. Bertini, of Turin, has lately employed this medicine in numerous cases of gastralgia, beginning with a dose of five centigrammes (= 0.77 grains), and gradually raising it to twenty centigrammes (= 3.08 grains). It was mixed with calcined magnesia, and given three or four times a day. In most instances the neuralgic pains disappeared under the use of this medicine: and in cases where the gastralgia appeared to be connected with organic disease, the symptoms were always much alleviated.

## TO READERS AND CORRESPONDENTS.

We have received communications from Drs. A. G. Henry, and Benton. The following works have also been received:—

The Prescriber's Pharmacopœia, &c. By a Practising Physician. Revised and corrected by an American Physician. New York: Samuel S. and William Wood. 1846. pp. 144. 16mo. From the Publishers. For sale by Brautigam and Keen, Chicago.)

A Manual of Chemistry. By RICHARD D. HOBLYN, A.M. Oxon. &c. New York: Sam. S. & William Wood. 1846. pp. 336. (From the Publishers. For sale by Brautigam and Keen, Chicago.)

A Circular of the Committee of the National Convention, on Preliminary Education of Medical Students. From JAMES COWPER, M.D., Chairman.

Annual Circular of the Medical Department of the University of Buffalo.

Medical Education in the United States: an Address delivered to the Students of the Philadelphia Association for Medical Instruction, at the Close of the Session of 1846. By ALFRED STILLE, M.D. Lecturer on Pathology and the Practice of Medicine. Phil. 1846. pp. 39. 8vo.

The following have been received in Exchange:

The Annalist, a Record of Practical Medicine. October 1, 1846. Vol. I. No. 1.

The Journal of Health and Monthly Miscellany, Boston. (In Exchange.)

The Medical Examiner. (In Exchange.)

The Bulletin of Medical Science. (In Exchange.)

The Western Journal of Medicine & Surgery. (In Exchange.)

The Buffalo Journal, and Medical Review. (In Exchange.)

Southern Medical & Surgical Journal. (In Exchange.)

The Western Lancet & Medical Library. (In Exchange.)

The St. Louis Medical and Surgical Journal. (In Exchange.)

The Medical News and Library. (In Exchange.)

The American Journal and Library of Dental Science. (In Exchange.)

The Boston Medical and Surgical Journal. (In Exchange.)

The Missouri Medical & Surgical Journal. (In Exchange.)

The New York Medical & Surgical Reporter. (In Exchange.)

The New York Journal of Medicine and the Collateral Sciences. (In Exchange.)

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ROCK RIVER MEDICAL SOCIETY.—An adjourned meeting of this Society will be held at Dixon, Ill. on the third Tuesday of January. The Society is not limited in its boundaries. It is to be hoped, therefore, that every Physician who can will be present, to aid in advancing the interests of Medical Literature in the West.

S. G. ARMOR, M. D.  
Secretary of the Society.



# ILLINOIS AND INDIANA MEDICAL AND SURGICAL JOURNAL.

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## PART I.—ORIGINAL COMMUNICATIONS.

### ARTICLE I.

*On the Treatment of Fevers and Inflammations without Mercury.*

By A. G. HENRY, M.D., of Pekin, Illinois.

It is no intention of mine to join in the crusade (now going on in the ranks of the advocates of the botanical system,) against mercury, as a remedial agent in the treatment of disease; but my object is, to show that it can be dispensed with in the treatment of those forms of disease, in which it has been regarded by the great mass of the profession as indispensable; and if possible, contribute something toward correcting the abuse of one of the most valuable remedies in our materials of medicine. The indiscriminate use of calomel by the profession in the Valley of the Mississippi for years past, has rendered them as obnoxious to the charge of quackery, as the Thompsonian, who prescribes his lobelia in every form of disease. That great mischief has resulted to the community from its abuse, cannot be questioned; and if we have a remedy of greater power, that does not produce any of those unpleasant consequences which so often follow the mercurial plan of treatment, it will no doubt be acceptable to the community, and readily received by the profession.

The experience of the last ten years has satisfied me, that we have, in four and six grains of opium, a remedy of far greater power in the treatment of fevers and inflammations, than mercury; and which can be substituted for it with perfect safety, and save to our patients an immense amount of suffering.

I claim to have been the first to call the attention of the profession to the use of from *four to six* grains of opium in fevers and inflammatory affections; and I have for the last ten years insisted most strenuously in my intercourse with medical men, that the evil effects, or want of benefit resulting from the use of opium in acute forms of disease, was attributable to the fact of its being given in too small doses. I am happy to find myself sustained in this opinion by Dr. Griffin, in a recent publication on the use of opium in abdominal affections, where he ventured upon its use to the extent of three grains of opium every two hours, with the most happy results. I have for many years administered it in doses of from four to six grains in cases of inflammatory dysentery after bleeding, and repeating the dose in three or four hours, if the first did not entirely subdue the disease, *which it will do* in nine cases out of ten.

When the practice receives the partial sanction of such names of Stokes, Bell, and Griffin, I shall expect that the suggestions of an obscure country practitioner will secure from the profession a sufficient degree of consideration to induce a trial of the remedy.

In an article upon the use of *large doses* of opium in fevers and dysentery, published in the August No. of the Missouri Medical and Surgical Journal, 1845, I submitted the following propositions as the results of long observation and experience in the use of large doses of opium; and their correctness has been confirmed by subsequent experience.

1st. That there is more danger of injurious consequences resulting from the use of one or two grains of opium in fever and inflammation, than from four to six grain doses.

2d. That two and three grain doses will often aggravate the symptoms and do positive injury, when a four or six grain dose would secure a favorable crisis in the disease.

3d. That *ten* grains of calomel, combined with four or five grains of opium, will act more decidedly and promptly on the secretory system, than thirty grains without the opium, or with one or two grains; assuming that both shall remain in the system the same length of time without passing off by the bowels.

4th. That a five grain dose will not constipate the bowels as much as a one grain dose, *neither will it produce as much sleep as a grain and a half, or two grains.*



5th. That when you produce ptyalism by combining large doses of opium with your calomel, you produce it more promptly, and avoid all danger of profuse salivation, with mercurial irritation.

Up to the time of the publication of that article, I had most generally combined calomel with my opium for the purpose of securing a cathartic effect after the influence of the opium had passed off, but not with a view of producing ptyalism. But having about that time removed from Springfield to a neighborhood where calomel was used by the faculty as the main remedy in every form of acute disease; and where its injurious effects were plainly visible in the broken down constitutions of very many of the adult population, induced by often repeated salivations, I was led in such cases to forego its use entirely, and the result has been most satisfactory.

When called to treat an ordinary case of bilious remittent fever, if there is high arterial action, I use the lancet, followed by an emetic of ipecacuanha and tartar, given so as to produce an emetico-cathartic effect; and, as soon as the stomach will retain it, give a four or six grain dose of opium, and repeat it in the course of three or four hours, if the first does not produce full diaphoresis. The next morning I give the black draught, or salts and cream tartar, until the bowels are freely moved, and at night repeat the dose of opium. The patient rests quietly during the night, and I confidently expect in the morning to find a full intermission; when one or two five grain doses of quinine puts an end to the fever, and secures a rapid convalescence, free from all those distressing consequences which are so apt to follow the mercurial plan of treatment.

The results of this practice are most satisfactory in fevers with gastric irritation, or abdominal affections, which are found so difficult of management, and which so often prove fatal, when treated on the most approved plan hitherto recommended to the profession.

In such cases, a full bleeding from the arm, with cups to the epigastrium, followed by a four or five grain dose of opium during the first twenty-four hours of the attack, seldom fails to secure permanent relief.

My object in this communication is to show that fevers and inflammations can be safely and successfully treated by sub-

stituting large doses of opium for calomel, now so generally relied upon by the profession, particularly in fever. But where it can be used without danger of salivation, I would not object to ten or twelve grains being given with the opium, in the course of the twenty-four hours; for it must be conceded that we have no better cathartic in febrile affections than calomel. Still in those cases where I have dispensed with its use entirely, I have secured apparently as favorable results.

It is the relying upon it as the *main remedy* to which I most strenuously object, and not to its being used with proper discrimination.

Since 1836, when I first ventured upon the use of five grain doses of opium, I have relied upon them with great confidence in the treatment of all acute pneumonic affections. After a full bleeding at the commencement of the attack, I give nauseating doses of tartar until the bowels are feely acted upon, when I administer a four or six grain dose of opium, and repeat it, if necessary, in the course of four or six hours. Saline laxations, with expectorants, will generally complete the cure without a repetition of the bleeding, or opiate.

I have often subdued the most violent attacks of pleuritis, with a single bleeding, followed by a full dose of opium.

The suggestions of Professor Barbour, of giving the opiate a short time previous to the bleeding, I am inclined to think is an improvement upon my practice, in pneumonic inflammations; but I cannot speak confidently from experience.

I am satisfied that the antiphlogistic power of opium has never yet been properly appreciated by the profession; but I find it now beginning to attract the attention of the faculty.

I venture the prediction, that in a few years more, it will be regarded by the profession as a remedial agent of far more power, when given in full doses, in the treatment of fevers and inflammations, than mercury.

As a remedy in enteritis and peritonitis, it is invaluable; and although not generally admissible in inflammations of the cerebro-spinal system, still, in those cases, it can be used with safety and advantage simultaneously with blood-letting, in the onset of the attack. In all cases of cerebral affections occurring in the latter stages of fevers, resulting from loss of power, a *full dose* will change the entire complexion of the case in a few hours, and place the patient in a state of safety.



For a more full and detailed history of my mode of using opium in fever, and particularly those of a typhoid and congestive character, I must refer the profession to my article published in the Missouri Medical Journal for August, 1845.

I am fully aware of the deep rooted prejudices that exist in the minds of medical men against the use of opium, and especially so against the *dose* which I recommend. But I know them to be entirely groundless. I have in the course of the last ten years administered four and six grain doses to thousands of patients, under almost every variety of circumstances, without in any one instance experiencing any unpleasant consequences from an over dose. I am fully convinced from observation, that cases do occur where a four or six grain dose could be given once or twice in the twenty-four hours with safety, where two grain doses, repeated every three or four hours, until ten or twelve grains had been given, would prove fatal.

I have purposely avoided in this as well as in my former article, entering into an examination of the "modus operandi" of five grain doses of opium, preferring to leave that question to be settled by each member of the faculty, as may best suit his preconceived opinions; believing that *facts* are now more eagerly sought for by the profession, than theories.

Should any gentleman, however, object to giving the practice a trial, for want of a *philosophical theory* to sustain it, and will make his objections known through the columns of your Journal, I will do my utmost to supply the deficiency.

*Pekin, Ill. November 26th, 1846.*

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#### ARTICLE II.

*A Case of Idiopathic Tetanus.* By W. WADSWORTH, M.D.,  
of Racine, Wis. Ter.

M. A. Palmer, Esq., of sanguine nervous temperament, aged 26, a lawyer by profession, had his constitution considerably impaired by successive fevers, which he suffered some years since, at the South. He, however, so far recovered as to be able to pursue his studies, and engaged in the practical duties of his profession.

I was called to see him on the 18th of June last, and found him suffering under a recent attack of bilious cholic, with the usual symptoms—obstinate constipation of the bowels, severe pain, nausea, and occasional vomiting; the pulse but little disturbed. Opium in full doses, combined with calomel and repeated; with warm fomentations to the abdomen, subdued the pain, and the constipation was finally overcome by castor and croton oil; and in a few days he was able to resume the business of his profession. From this time up to his recent illness, he occasionally complained of more or less irregularity of bowels, capricious appetite, and sometimes of great exhaustion from a little over-exertion. For these difficulties he took, occasionally, the blue pill, mild tonics, and port wine.

On the evening of the 1st of September I was called again to see him. Found he had slight chill, severe pain and soreness of head, coated tongue, entire loss of appetite—in fact, all the incipient symptoms of an attack of bilious remittent fever, which was prevailing extensively around him at the time. Gave an emetic of ipecac., to be followed by powders of James and Dover, with 4 grs. calomel every four hours, and the acetate ammonia every four hours. The next morning he had less pain of head, some uneasiness about the neck of the bladder, and difficulty of making water. A cathartic of senna and rhœi was given, with mucilaginous drinks, and sweet spirits of nitre every two hours.

In the after part of the day found him with considerable nervous irritation. The cathartic had not operated, and, the difficulty of making water continuing with augmented force, ordered a stimulating enema, the introduction of which gave him great pain at the time. It was, however, soon followed by free evacuation, indicative of a bad state of the secretions. Warm fomentations were applied to the region of the bladder, and uva ursi, juniper, and gum arabic, was given, to which, in a little time, the buchu was added, with marked success over the urinary difficulty, and he experienced no further trouble in this respect during the whole course of the disease.

After this several days passed with but a mild grade of fever: the secretions were endeavoured to be improved with small doses of calomel, and the hydrarg. cum creta, with mild cathartics, which, by the by, always produced *more than or-*



*dinary irritation in their operation*, but which was easily allayed by Dover or morphine that was used for this purpose. Under this course the fever soon declined, and convalescence seemed to be fairly advancing. His spirits, which during the first part of his sickness were at times greatly depressed, were now more buoyant, the tongue becoming clean, the appetite improving, and every thing indicating that, at least, his usual health would soon be established.

But this bright prospect was soon obscured and darkened by a train of symptoms as *unique* as they were inexplicable. At noon on the 10th, while taking his dinner, he complained of some stiffness and inability to move his jaws. He was directed to wash them in some warm spirits of camphor and laudanum, and encouraged to hope that it would soon disappear. In the evening the symptoms still continuing, particular enquiries were instituted whether any local irritation existed about the mouth, *teeth, or any other part, and finding none, and the general system undisturbed*, I could not bring myself to the belief that it was any thing of the nature of that terrible disease which it soon, notwithstanding, proved itself to be. The treatment of quinine and wine was continued, and a full dose of morphia and camphor at bed time. The jaws were bathed in a strong stimulating liniment through the night. He slept well during the night, and up to this time the pulse was undisturbed, beating but eighty to the minute, full and soft, no fever, nor the slightest pain or irritation in any part of the system—save, indeed, some anxiety of mind as to the singularity and obstinacy of the difficulty about his jaws.

Soon after this, however, the difficulty of deglutition, and especially in the swallowing of liquids, and rigidity and drawing backward of the muscles of the neck, with slight general spasms, announced, in a manner not to be misunderstood, the terrible nature of the disease. The pulse was now increased in frequency, the tongue was more coated, and the discharge from the bowels was liquid, dark coloured and extremely fetid. Blisters were applied to the jaws and side of the neck; morphia, 1 gr. with 5 of calomel and morphia in grain doses, with camphor, directed every two hours; and wine, in free and large doses, given through the night. But these means produced not the slightest control over the spasms.

The night was passed without sleep or rest, the patient

often remarking that "if those spasms could be stopped he should be perfectly well." He also complained of being hungry. In the mean time the abdominal muscles became retracted and perfectly hard; the pulse 120 and weaker; the power of deglutition more embarrassed, and sometimes almost lost; the surface covered with an abundant perspiration; the spasms more frequent and more intense. Dr. Graves and several other medical friends were called in in consultation. A more decided tonic and narcotic treatment was recommended. 15 grains of quinine, 4 of opium, and 6 of capsicum was given; the quinine to be repeated in two hours, and tea spoonful doses of laudanum to be given every hour; tincture of nux vomica 20 gtt. every two hours. To these was added, after a little time, the prussic acid, 4 gtt. every two hours.

These powerful and often repeated medicines had not the slightest control over the spasms, nor did they in the least manifest their narcotic effects upon the brain or nervous system—the mind remaining clear and unclouded to the last. As the symptoms advanced the breathing became more and more embarrassed; a livid palor overspread the countenance; a clammy sweat, the surface; the pulse rapidly sinking, while the spasms were increasing in frequency and power, till a general convulsion of the whole muscular system terminated at once the sufferings and life of the patient in 48 hours from the first notice of any difficulty about the jaws.

Idiopathic Tetanus is a disease rarely seen at the north, and the causes that gave rise to it in this case are very obscure. It is a matter of regret that a post mortem examination was not obtained. It might have revealed some internal lesion, which though not announced by any marked symptom, was sufficient, in a *constitution peculiarly excitable* as was his, to have brought it on. The disease of the bowels he had recently suffered, as well as the inordinate irritation produced by the mildest purgatives during his illness, would seem to indicate that intestinal irritation, or some structural lesion in some portion of the alimentary tube, was more than probably, the source of this terrible malady.



## ARTICLE III.

*On the use of Quinine.* By A. W. BENTON, M.D., of Sterling, Whitesides co., Ill.

What is the condition of the system, and what the indications which require the use of quinine?

As much as has of late been written upon the use of quinine, the answer to the above question seem still to be a desideratum in the practice of medicine. The science of medicine can be improved only by a long and careful observation of facts and phenomena as they occur around us.

These facts have to be collected, compared, and their different relations and bearings carefully noted, before any definite law, or rule of action, can be established.

As these facts and phenomena are not confined to the observation of a favored few, but are spread abroad upon the open page of nature, it often happens that a man in the humbler walks of life may discover some important truth, which the far directed ken of a more eminent man may have overlooked. Or, if he is not so fortunate as to make any new discovery, he may at least observe some trifling circumstance, that may go far to establish the truth of some previous discovery.

This being the case, it is the duty of every physician to be vigilant at his post, however limited the sphere of his observation.

It seems to me that some are too indiscriminate in the use of quinine, while others are too cautious. That quinine has a decided and specific action upon the system, under certain circumstances, is a well established fact.

This being the case it must be adapted to some peculiar state of the system, indicated by a certain train of symptoms. What this state of the system is, and what are its symptoms, have been subjects of study and observation with me for the last seven years, the length of time I have resided in Illinois.

The result of my observations is, that an impoverished and morbid state of the blood, causing a diminution of the contractility of the heart and arteries, and functional action of the capillary vessels, constitute that state of the system which calls for the use of quinine. And that this state is indicated by a more or less well marked tendency to exacerbation and

*remission*, if not *intermission*: and never characterized by that hard, unyielding, and bounding pulse which attends acute inflammation.

In the height of a paroxysm of fever, the pulse may approximate to the character of an inflammatory pulse, but still I have always found it to lack that hardness which it assumes in inflammation. The coats of the artery do not feel so rigid, and tense, and unyielding. The action of the heart and arteries seems to be more of a tumultuous action, as if it proceeded from irritation, as I believe it does; and *that* irritation caused by an accumulation of blood in the large vessels; and this accumulation, in its turn, produced by the previous diminished action which proved insufficient to carry on the natural circulation through the capillary system of vessels; which are, at the same time, laboring under, or rather ceasing to labor under, a diminished supply of nervous energy or influence.

The true theory of intermittent fever seems to me to be something like the following.

A vitiated state of the atmosphere, consisting probably in the admixture of some exhaled gaseous matter, together with a changed electrical condition, imparts to the blood an unhealthy, or morbid quality. This morbid blood, together with the electrical change, produces a diminished energy in that portion of the nervous system which presides over the circulating and organic functions of the body.

The consequence is, the blood does not stimulate the heart and arteries sufficiently to keep up their accustomed contractility, and elasticity. The capillaries at the same time are incapacitated for the performance of the functions assigned them.

From all this results a diminished action of the heart, arteries, and capillaries, insufficient to carry on the circuit of the circulation—the blood ceases gradually to find its way into the small vessels, and gradually accumulates in the large vessels.

When the capillaries get sufficiently empty, the consequence is a rigor or chill. When the large vessels get sufficiently full, or full for a sufficient length of time, the consequence is irritation and reaction, which forces the circuit of circulation till an equilibrium is established; then the reaction ceases, leaving the system in comparative health.



Then again, during the intermission, commences and continues the same diminished action, and gradual accumulation of blood in the larger vessels, and emptiness of the capillaries, till the same phenomena, in a longer or shorter period, are again produced; thus accounting for the periodicity of agues.

The action of quinine I conceive to be to neutralize the sedative poison of malaria, and restore to the blood its appropriate stimulus for calling into action the heart, arteries and capillaries, giving them tone, vigor, and stability of action.

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#### ARTICLE IV.

##### *Case of Abscess of the Female Breast, from which a Worm was discharged.*

Dr. Thompson Mead, of Kane Co., Ills., has related to us this case, which, as far as we know, or can learn from the examination of any works within our reach, is unique in the records of medicine.

A young woman, in good health, of about 20 years of age, was, during the past autumn, while nursing her first child, attacked with pain and induration of the breast, which, after a few days, resulted in an abscess, which was punctured. Pus, mixed with blood, was discharged in considerable quantity, after which the Doctor perceived a small body protruding, and, seizing it with his forceps, drew it out. It proved to be a worm nearly an inch in length, of a yellow color, jointed, pointed at the extremities, firm in texture, and extremely active and tenacious of life. The abscess soon healed, but, at the time we saw the Doctor, another seemed to be forming at a different point of the breast.

In what way could the worm have found its way to that situation? The only possible solution of that question which occurred to us was, that it might have been generated in the intestinal canal of the child, and passed from its mouth to the breast while the infant was asleep, or holding the nipple in its mouth without sucking. This is rendered somewhat probable by the fact, that worms have been found in the nasal cavities, antrum, frontal sinuses, &c., derived from that source. The child was nearly a year old at the time of the formation of the abscess, which further adds to the proba-

bility of the conjecture. If there is some other and better explanation to be found, we will feel obliged to any one who will furnish it to us.

The worm, corresponding to the description given, has been deposited by Dr. Mead in the museum of Rush Medical College.

D. B.

*Chicago, Dec. 21, 1846.*

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ARTICLE V.

*Dislocation of the Elbow, of Five Months and Thirteen Days standing. Reduction.* By DANIEL BRAINARD, M.D., Prof. of Surgery in Rush Medical College.

On the 14 Dec. 1846, Mr. G. æt. 19 years, consulted me about his left elbow, which had been injured on the 2d July last. A surgeon was called at the time, who pronounced the injury a dislocation, and, as he supposed, reduced it. After carrying the member in a sling in a bent position for about three weeks, the Dr. directed him to "move it and straighten it." Such was the account he gave.

On examination, the following appearances were observed. The inferior extremity of the os humeri was found resting upon the anterior surface of the bones of the fore-arm at the elbow, the condyles and articular surfaces being distinctly felt. The radius and ulna were as distinctly felt, resting behind upon it, the fore-arm being extended, shortened about an inch, and incapable of being flexed in the slightest degree by moderate force. The muscles of the member were much atrophied for want of use, and the position of the bones could readily be recognized by the eye, as well as by the touch, so that no one could at that time fail of detecting a dislocation of both bones of the fore-arm backwards.

If it was easy to detect the nature of the accident, it was more difficult to determine upon the propriety of attempts at reduction. For ancient dislocations of the elbow have not received the same attention from surgeons as those of the shoulder; and no rules have been generally adopted in regard to the length of time at which efforts for reduction may be made with prospect of success.

In my own experience I have only met with one case of



the kind, suitable for reduction. This was of eight weeks' standing, in a girl about six years of age, and, in reducing it, the triceps muscle was found to resist so firmly that it was divided by subcutaneous section; after which the reduction was easily effected, and the result was favorable. The force required was, however, so great as not to make me think favorably of a similar attempt at a much later period. The importance of the object to the patient, however, inclined me to make the effort, which was accordingly done on the 15th inst., with the assistance of Professors McLean, Blaney and Dr. Maxwell, in presence of the medical class and several physicians.

Seating the patient upon a chair, I flexed the fore-arm around my knee, drawing it forward, at the same time, until it was brought to about its natural limit of flexion. This required considerable force. On examination, it was found that the bones were brought down to the natural position, except that the articular surface of the os humeri did not seem to be fully received into the greater sigmoid cavity of the ulna. The effusion of blood which took place at the time of the accident, and the subsequent inflammation had undoubtedly left behind, upon these articular surfaces, quantities of lymph which prevented their nearer contact. Desirous of remedying this as much as possible, force was moderately applied with the pulleys to press the ulna forwards, while the humerus was drawn backward.

This produced a decided improvement, without entirely effecting the object in view. A roller was applied about the hand and fore-arm, with compresses upon the elbow in such a manner as to prevent the danger of a reproduction of the displacement, the fore-arm placed in a sling in a bent position, and evaporating lotions applied. Considerable swelling occurred, which, at the end of a week, had subsided sufficiently to allow of passive motion for restoring the movements of the joint. Flexion and extension are now made to a great extent, and the bones have come very nearly to their natural position; so that no doubt exists that with good care and perseverance the use of the member will be regained, and with little if any defect in the joint.

So favorable a result with so little force was far from being anticipated. But it should be added, that the patient was not

very muscular; and that the system was in a state of debility and relaxation, in consequence of intermittent fever, under which he had labored during the autumn. The care which had been taken to keep the joint extended also evidently favored reduction, since it was only necessary to use the forearm as a lever in flexion to bring the bones to their proper places.

Without these favoring circumstances, it is obvious that much greater difficulty might have been experienced in the reduction.

*Chicago, Dec. 31, 1846.*

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#### ARTICLE VI.

*On the use of Nitric Acid Issues in Chronic Diseases.* By P. A. ALLAIRE, M.D.

We find, on consulting dictionaries, dispensatories, &c., nitric acid noticed chiefly as a tonic, alterative, and disinfectant. As a caustic, it is scarcely mentioned, although it possesses powers in this respect, inferior to no other article. As a cautery, for the formation of issues, I know of no authority recommending it; yet when used in its concentrated state, it seems to me much superior to the article usually had recourse to, viz. Potassa; for it will destroy the cutis down to the cellular tissue in from five to eight minutes, whereas the potassa requires nearly as many hours.

Metal at a white heat is alone more rapid in destroying the living tissue, but the application of a hot iron will not, even in idea, be tolerated by many patients, and, therefore, cannot be used. And, as quickness in the formation of issues, as well as in every other painful operation, is important, (the amount of pain being always proportionate to the time occupied) therefore the nitric acid, for this reason alone, may well merit attention. It is also as manageable as any other article, is very cleanly, and has nothing in its appearance terrible to the patient.

I wish here to notice the effect which late standard authorities attribute to issues. If I am correct, they are regarded chiefly as *revellants*, their utility being supposed to be in a ratio



to the irritation they produce; little importance being assigned to the discharge. They are therefore made small, and irritation kept up in them by the use of issue peas and other foreign substances. Many of the older surgeons used the issue for the discharge, and yet, strangely enough, made them quite small. My experience has led me to use the issue as a drain, or as a means of steadily depleting a part; believing depletion as important in chronic inflammation as in acute, and that its activity should ever be proportioned to the activity of the disease. I believe, therefore, that the true method is to make the issues large, and in number varied as the disease under treatment is more or less extensive. It is also proper to avoid introducing into them any foreign substance, which always creates an unhealthy and offensive discharge, but, by a simple or slightly stimulative dressing, keep them healthy, allowing the healing process to go on as it will. By this mode of management the sore will generally close in twenty-five or thirty days, which I think a great advantage; because the constitution cannot in so short a time *adopt the discharge as a part of the healthy condition*; for the moment this occurs, then ceases the benefit of the issue as a drain, and also as a revellant. After the issues are healed, they may be again opened after the lapse of eight or ten days, if the continuance of the disease demand. And thus the depletion is again commenced, and kept up intermittingly as long as the particular case may require.

So successful have I found this method, that, in curable chronic diseases of an inflammatory or sub-inflammatory character, of some six and eight years continuance, it has, in my hands, very rarely failed of securing a favorable result and often has been successful without attention to diet, exercise, &c. I do not, however, underrate the value of revellants, or counter-irritants; as a class they are most important; yet they often fail in relieving long standing disease, even when perseveringly applied, and combined with constitutional treatment. Especially is this the case, when the difficulty is of an inflammatory or sub-inflammatory character. Under such circumstances, a large and freely suppurating surface, established as near the afflicted part as possible, unloads the turgid and enfeebled vessels, and enables them to resume a more healthy action. The following cases selected from many others, will

serve to illustrate this method of using issues, and demonstrate their usefulness as a means of depletion.

*Case 1st.* D. H., a man of robust constitution, temperate habits, and general good health, æt. 33, called on me in June 1842, to prescribe for the following symptoms,—constant and excessive headache, with a feeling of fullness, face not flushed nor the veins distended; on stooping, dizziness and tinnitus aurium common, so that he has immediately to resume the upright position for fear of falling. The disease has been gradually increasing during the last five years in its severity, in consequence of which he has been compelled to relinquish his trade, that of an iron moulder. The usual remedies have been had recourse to, viz. bleeding, general and local; blisters, purgatives, &c., with scarcely temporary relief. I advised a large issue to be made on the nape of the neck, which after some persuasion was consented to. The issue I made of an oval form nearly two inches long by one and a quarter wide. No other remedy was used, and no particular attention given to diet. In six days the slough separated, and the discharge was profuse, which continued for twenty days, when it gradually healed, leaving the head free from every uncomfortable feeling. There has been no return of the disease to this time, and my old patient has long since resumed his former occupation as a moulder.

*Case 2d.* M. S. came under my care in Jan. last. She is a tall well formed woman aged about 30 years, mother of three children: the youngest four years old. Has been an invalid for some years, but worse since the birth of her last child. The symptoms have been all this time much as they now are, only as they have varied in severity.

*Symptoms.*—Costiveness, want of appetite, frequent nausea and vomiting, irregular pains in the abdomen, slight leucorrhœa, menses irregular, and deficient as to quantity. The spinal column is tender on pressure from the sixth cervical to the last lumbar vertebræ; the third and fourth dorsal are particularly tender. The woman looks pale and feeble, but is yet able to sit up and can sew for a short time. During the long period of her sufferings she has been subjected to a variety of treatment, sometimes with temporary benefit. She has had no issue or seton inserted, but has used ungt. tart. ant., with blisters to the spine, and a host of internal remedies.



*Treatment.*—Jan. 15th. Three issues were made along the sides of the spinal column, one opposite the third dorsal, one opposite the twelfth dorsal, and one opposite the fifth lumbar vertebræ. The issues were each about two inches long and one and a half wide at the broadest part, and of an oval form. The following pills were exhibited, as a tonic, and to relieve costiveness.  $\mathcal{R}$ , ext. colocynth. comp.  $\mathfrak{z}$ j. Ferri sulph.  $\mathfrak{O}$ j in pill. xx. One of the above to be taken morning and night. During the treatment some attention was given to diet, but her other habits remained the same. Jan. 25th, the sloughs of the issues have separated and the discharge is profuse, indeed the debility is increased thereby. The bowels move kindly now with one pill per day. The appetite is much improved, the stomach digesting easily the lighter articles of food. No diminution of spinal irritation. Directed  $\mathfrak{z}$ j of infus. gentian three times daily, and the pills to be continued, one per day.

Feb. 12th. Spinal tenderness very much diminished, appetite improving, bowels regular with one pill every other night, patient's look much improved, but her strength is not increased. Issues yet discharge freely, but are beginning to heal.

$\mathcal{R}$ , carb. ferri gr. viij, three times a day, and discontinued infus. gent. and pills.

Feb. 25th. Issues nearly healed; spinal tenderness gone; strength much improved; all uneasiness and pain of abdominal organs gone; stomach digests ordinary food with facility; uterine function natural and leucorrhœa has ceased. Directed the patient to continue the use of the carb. ferri for two or three weeks twice per day. No further treatment. She has not since had any return of her old difficulties.

*Case 3d.* S. H., a young man of 23 years of age, has been in feeble health for a period of four years, occasionally tolerably comfortable for two or three weeks, and then suffering so severely as to require active treatment.

*Symptoms.*—Frequent desire to pass urine, which he says is often bloody, always albuminous when I have tested it, pain in the loins, particularly on the left side; frequent griping pains in the bowels and often mucus or bloody discharges from them. These symptoms are constant, and occasionally of such severity as to call for general bleeding, with large doses of opiates. The vertebræ are not tender under pressure. The constant use of opium gives Mr. H. the only respite which he

has from his disease. He is pale and much enfeebled, but is yet able to be "around." As usual in chronic cases this patient has tried everything and everybody, but with no more benefit than to relieve the exacerbations. I have treated him for two months with various internal remedies, and blisters and other revellants externally, without apparent benefit.

June 22d, 1846. Inserted two nitric acid issues, one over the left kidney near the spine, the other in the anterior superior part of the left iliac region. Discontinued all other remedies except the opiates. The issues were each full two inches long by one and a half, and of an oval shape.

June 30th. The issues are discharging freely, no alteration in symptoms.

July 23d. The issues have been open three weeks, and are commencing to heal. The patient is better in every respect. He now seldom rises more than twice or thrice at night to pass water, and much smaller quantities of opium than formerly now suffice to quiet the bowels: appetite and strength improved.

July 25th. Issues healed, no alteration in symptoms since the 23d.

August 6th. Re-opened issues at the request of Mr. H. He declares they have done more for him than all former remedies, and thinks they will effect a cure.

Aug. 25th. The issues have discharged properly for two weeks, and the patient thinks himself nearly free from disease. His strength has so much improved that he is able to perform light labor. The case is evidently doing well.

October 1st. The issues healed about 12th of September, leaving the patient apparently free from disease, except a slightly irritable condition of the rectum, as manifested by tenesmus, but without bloody or mucous discharge. He is now laboring on a farm.

The foregoing cases, which I have abbreviated so far as is consistent with a full understanding of them, seem to me fairly to exhibit the usefulness of the issue used as a means of depletion. The method of applying the nitric acid for the formation of issues is sufficiently simple. All the issues in these cases were made with pure nitric acid in the following manner. A small linen swab, or camel's hair pencil, is procured, with which the acid is painted on the part to be



destroyed; continue the application from six to eight minutes, varying with the thickness of the skin and the strength of the caustic. When the cutis becomes rigid from the coagulation of its albumen, so that it can no longer be raised in folds as usual, it is enough: the part is dead down to the sub-cutaneous tissue. It should always be carried thus far: the subsequent ulcer is then never painful. Immediately apply some alkaline solution to prevent further destruction of the parts, which it does by neutralizing the acid. The alkali should be applied for fifteen or twenty minutes; it is well then to apply a warm poultice to facilitate the separation of the eschar, and relieve any remaining inflammation of the part.

I am in the habit of dressing the issue with common adhesive plaster, spread on linen or strong paper. With this simple dressing frequently changed, I have never known a nitric acid issue become either painful or unhealthy.

The foregoing cases and remarks are offered because the utility of *large* issues seems to me not sufficiently regarded by the mass of the profession in this section of our country.

*Aurora, Kane Co., Ill., Dec. 26, 1846.*

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#### ARTICLE VII.

IN CAMP, NEAR MON CLOVA, MEXICO, }  
November 5, 1846. }

I am now writing in the vicinity of a Mexican town, containing about 5000 inhabitants, situated between, and nearly surrounded by, mountains.

The distance from San Antonio, Texas (the point where the column under General Wool was organized), is about 400 miles. We started from San Antonio the second day of October, and arrived here the 2d of November, thus making a march of thirty days without stopping.

This marching, day after day, so far into the interior of Mexico without meeting with any opposition, and with no prospect of a fight, causes a great deal of dissatisfaction, and is the subject of constant complaint with our Illinois Volunteers.

When on the march, we start in the morning by sunrise, go from 12 to 15 miles without halting, excepting for a short time now and then, and encamp for the rest of the day and

following night, generally about 11 o'clock, A. M. As I remarked in a former letter, we pass through all the towns in our way with drums beating and colors flying. In the towns of most importance we take formal possession, and plant the American Flag in the most public and conspicuous position.

A few miles from each town we have, in every instance so far, been met by the Alcalde, or ruler, with the principal men of the place, as a deputation from the citizens; and it is by means of such deputations that the people throughout this section of country, have unanimously, as I believe, expressed their determination to offer no opposition to our progress. In truth, it seems to be their wish, not only to remain neutral in the contest between the United States and their central government, but many of them openly express a desire to become separated from it, and a wish to form a republic of their own, or to come under the protection of that of the United States.

As an evidence of their oppressed condition, and to show from whence this feeling originates, it may be stated that, according to their representation, the Mexican army, in marching through their country, would live by robbing and plundering the inhabitants. The officers of ours, on the other hand, treat them as friends when they are friendly, and pay them fair prices for the means of subsistence.

With regard to the question, will it be good or bad policy to admit this portion of Mexico into the Union? intelligent men will of course differ in opinion. For my own part, I do not believe the Mexicans, as a mass, are, as yet, sufficiently far advanced in civilization and intelligence to admit of their establishing and sustaining a truly republican form of government; and therefore it would be not only bad policy, but dangerous, to endow them, at once, with the rights and privileges of citizens of the United States.

As examples of their barbarous customs, and tyrannical laws, the following may serve as specimens.

In many parts of the country matrimonial engagements are temporary merely: it being a common custom, as I am informed, for parties to agree to live together as man and wife for a few months only, at the end of which time either is at liberty to dissolve the compact. As an excuse for this demoralizing custom, they say that the Indians have, in many parts of the country, destroyed so many of the men, that there are to



every male inhabitant five or six females, and that unless such an indulgence be permitted, the population of their towns will rapidly diminish, and eventually become entirely extinct. Whether this be a sufficient reason or not for such an absurd and ridiculous custom, our readers can, for themselves, determine.

One example of their oppressive laws, and we are done for this time with Mexican institutions, and the character of the people.

In marching through this part of Mexico, we find the inhabitants, not scattered over the country as in the United States, but collected together, in towns from 20 to 50 miles apart, in the rich valleys between the mountains. We frequently meet with a collection of rude buildings surrounded by a wall, and inhabited by numerous slaves who, like the herds of cattle, and many square leagues of land in the vicinity, are owned by a single tyrant. An establishment of this kind is called by the Mexicans, a hacienda.

The slaves thus condemned to servitude and a life of bondage are not, like ours of the United States, marked by nature as a different race of beings from their masters, but in many cases, the Mexican slave is as well formed, physically, and is as intelligent as the tyrant who owns and governs him.

This being the case, the question naturally arises, why is it that people of the same race, not differing materially in natural endowments, are a few of them masters and the rest slaves?

This state of society results from a most tyrannical law, which provides that whenever one person becomes indebted to another, the debtor, unless he is able to make immediate payment, becomes at once the slave of the creditor, and is obliged to labor for him at a rate not exceeding 3 or 4 dollars per month, till the demand is cancelled. The amount earned, in this way, by the debtor, is often less than the sum required for his subsistence, consequently he is obliged to purchase on credit still more of his master, and thus to perpetuate a life of bondage.

The worst feature in this system of slavery for debts is, doubtless, that which provides for the perpetuation of this life of bondage; for it is not the debtor alone that is bound thus

to give up his liberty, but his children inherit his debts, and with them loose the rights of free men.

Having thus given a few hints concerning the customs and laws of the Mexicans, we will now proceed to the consideration of a subject which more immediately interests the people of Illinois, especially the medical men of our State.

Since joining the army, I have, for the most part of the time, been the only medical officer attached to the 1st regiment of Illinois Volunteers, and can of course speak with entire confidence, with regard to the diseases which have prevailed among the volunteers of this regiment.

On entering upon the duties of my office at Camp Crocket, near San Antonio, Texas, I found from 60 to 70 on the sick report. Of the cases thus reported, a majority were miasmatic fevers of a mild grade, which yielded readily to gentle laxatives and quinine, in doses of from 10 to 15 grains in the 24 hours.

This kind of treatment soon reduced the number of sick from 75 to 40, in a command of about 800 men. My experience, so far, in the army, with this class of diseases, has fully confirmed my belief in the utility of administering large doses of this most efficient remedy in miasmatic diseases. I have given it in all stages of these fevers, with uniform success, and without, at any time, producing unfavorable results. Diarrhoea is another disease very prevalent in the army; but, in most cases, it is of a mild form and yields readily to some mild mercurial, such as blue pill followed by, or combined with, opium and camphor. There are a few cases of a chronic form however, that do not yield so readily, but continue obstinately to debilitate the patients and produce emaciation. Many of these, I have no doubt, are dependent upon an ulcerated condition of the mucous membrane, whilst others perhaps result from torpid or diseased livers.

But of all the diseases to which the volunteers have been subject, those of the lungs consequent upon measles, have been the most destructive to life. From what I could learn of the diseases, previous to my joining my regiment, nine-tenths of those which proved fatal were of the lungs, and in all the cases, the patients had had measles whilst on the march, or in camp, in cold tents and sleeping upon the ground. To those acquainted with the progress of this cutaneous disease, and its tendency to produce lung affections under any



circumstances, it will not appear strange that it was the cause of fatal results in so many cases, nor will they be surprised to learn, that all kinds of treatment under the circumstances proved of little or no avail.

We are now on our march through the high lands of Mexico, where there are, probably, as few causes of disease, as in any section of the world. It is to be expected, therefore, that unless we get into a brush with the Mexicans, and as a consequence, have a few surgical cases, we shall have but little of professional interest to communicate. Still, we shall not let any opportunity pass, of giving to our readers interesting intelligence, whether it be of a professional or general nature.

WILLIAM B. HERRICK.

## PART II.—REVIEWS.

## ARTICLE VIII.

*Adulterations of various Substances used in Medicine and the Arts, with the Means of Detecting them: intended as a Manual for the Physician, the Apothecary and the Artisan.* By LEWIS C. BECK, M.D., Prof. of Chemistry in Rutgers College, New Jersey, and in the Albany Medical College: Honorary Member of the Medical Society of the State of New York, etc. New York: Samuel S. & William Wood, No. 261 Pearl Street. 1846. pp. 333. 12mo.

This manual is intended to exhibit the adulterations of substances used in the arts, as well as in medicine; and the processes for detecting them are generally quite simple, and may be easily followed by those who have but a slight acquaintance with chemistry. The style of the work is plain; technicalities are as little used as could be expected, in a work of this kind, on which account it is useful to a larger proportion of readers than it otherwise would be.

This simplicity of style would appear to be the more necessary, as it is intended for others than medical men.

In an appendix is a full description of the chemical operations, noticed in the body of the work, directions for the preparations of re-agents, and several tables showing the behavior of some of the re-agents with the more important substances. This addition adds materially to the value of the work.

We will select from it some portions which treat of the more important medicinal agents, such as are in every day use by the practitioner. We will commence with Columba, an article which is frequently adulterated with other roots differing greatly from it in medicinal properties.

“COLOMBA, U. S.—The root of the *Cocculus palmatus* D. C. (*Menispermum palmatum* Lam.), a native of Southern Africa. It is generally found in the shops in dried cylindrical slices, which have a thick yellow bark covered with an olive-colored skin, and a browner and spongy central portion. It is usually much worm eaten, and for use those pieces should be selected which are the least so. It ought to have a bright color. It is sometimes mixed with slices of bryony root, *Bryonia dioica*, a



most dangerous adulteration, consisting in the substitution of a drastic purgative for a grateful tonic. The fraud probably originated in a belief which once prevailed that columba was the root of the *Bryonia epigæa* W. which is said to resemble it in its properties.—(*Burnetts Outlines of Botany.*)

“Columba, when moistened and touched with tincture of iodine, should become blackish in consequence of the presence of starch. False columba presents no change of colour when treated in this manner. Pure columba gives no colour to sulphuric ether; false columba gives it a fine yellow.

“The root of the American columba, *Frasera Walteri* Mich., is said to have been sold in some parts of Europe for the genuine, and perhaps the same thing has been done in this country. According to M. Stolze of Halle, it appears that while the tincture of columba remains unaffected by the sulphate or sesquichloride of iron and gives a dirty grey precipitate with tincture of galls, the tincture of *frasera* acquires a dark green with the former reagent, and is not affected by the latter.”

“MERCURY, PROTOCHLORIDE OF.—*Hydrargyri Chloridum Mite*, U. S.—*Calomel*.—This compound, when obtained by sublimation, occurs in a white, fibrous, crystalline mass, studded with shining, transparent crystals, having the shape of quadrangular prisms. When finely powdered, it acquires a buff colour. As formed by precipitation, it is a white, tasteless, inodorous and insoluble powder. Its specific gravity is 7.20. When heated to redness, it rises in vapour without previous fusion. By a moderate heat it becomes yellow, but recovers its white colour on cooling. When rubbed with the alkalies, or alkaline earths, it becomes black, in consequence of the formation of protoxide.

“Through carelessness in its preparation, calomel sometimes contains corrosive sublimate. This may be detected by heating a portion of the suspected calomel with eight or ten times its bulk of alcohol, and then adding to the alcoholic liquor some solution of ammonia, which causes a white precipitate if corrosive sublimate is present. The presence of chalk may be ascertained by the effervescence which follows the addition of a very small quantity of very dilute muriatic acid, and the precipitate produced in the clear neutral solution by oxalate of ammonia. To determine whether this is not caused by white lead, which may also be used as an adulterant, pass a stream of sulphuretted hydrogen through the filtered muriatic solution, when, if lead is present, a black precipitate will be produced. After the separation of the sulphuret by filtration, the clear solution may be tested for lime in the manner already pointed out. Nitrate of mercury may be detected by digesting the calomel in dilute nitric acid, and then adding potassa, when a red precipitate will be produced.

“Calomel changes colour by exposure to the light; it should, therefore, be kept in a dark place, or in bottles painted black, or covered with black paper.”

In addition to the foregoing we would add iodide of potassium, which when added to water in which calomel containing corrosive sublimate has been digested, produces a scarlet precipitate. Care should be taken not to add it in excess, as it will cause the precipitate to disappear, by forming a double soluble salt, in which the iodide of potassium acts the part of a base, and the biniodide of mercury that of an acid. This is a very striking and delicate test. We might also add that of nitrate of silver, a pure solution of which, if added to water, digested upon calomel containing corrosive sublimate, will produce a white precipitate of chloride of silver. This also is capable of detecting a very small quantity of the bichloride of mercury.

It is very important that physicians should obtain a pure article of calomel, and the more so, both on account of its frequent use, and the highly deleterious properties that might be communicated to it, by one of those agents with which it is liable to be adulterated.

“**MERCURY, PROTOXIDE OR BLACK OXIDE OF.**—*Hydrargyri Oxidum Nigrum, U. S.*—A dark grey or nearly black powder, insoluble in water and yet having a metallic taste. Its specific gravity is 10,69. When pure, it is entirely soluble in acetic and nitric acids, and entirely insoluble in muriatic acid which forms with it water and calomel. By a strong heat it is completely dissipated, and metallic mercury is sublimed.

“Protoxide of mercury has a great tendency to resolve itself into peroxide of mercury and metallic mercury, and it is extremely difficult to procure it in a state of absolute purity. It is often adulterated, especially when in the form of the blue mass or of ointment, with lampblack, sulphur and other substances; and sometimes this ointment is almost wholly free from mercury. Such frauds may be detected by melting the ointment, or by warming it in very strong alcohol, or in ether, which dissolve the fat, and deposit the mercury, if present, or demonstrate the deficiency when absent.

“The blue mass is sometimes prepared with conserve of roses, to which sulphuric acid has been added to heighten the colour; and it then contains subsulphate of mercury, which possesses very irritating properties. The presence of this salt may be detected by triturating the mass with boiling water and adding to the filtered liquor a solution of nitrate of



baryta; if any sulphate be present, a white precipitate, insoluble in nitric acid, will be produced.

“If the protoxide of mercury is mixed with the peroxide, it may be detected by dissolving the suspected substance in muriatic acid and adding potassa to the filtered solution. A reddish or yellowish precipitate indicates the presence of peroxide. Oxalate of ammonia added to this solution will cause a white precipitate if the protoxide contains lime. Calomel, if present, may be detected by boiling the powder with a solution of potassa, which, when the solution is saturated with nitric acid, will give a precipitate of chloride of silver on the addition of the nitrate of that metal.

“The presence of metallic mercury may be detected by the protoxide not being completely soluble in acetic acid.”

We will next notice the article of milk. The remarks in relation to it will be found more particularly useful to such as live in large towns and cities, and who are dependent upon others for their supply. The physician is also much interested in this matter, as, undoubtedly, in large towns many of the diseases of children are produced, and previously existing ones much aggravated, by milk of a depraved quality.

“**MILK.**—In large cities, where the consumption of milk is very great, it is seldom exposed for sale without having received some fraudulent addition. Although these adulterations are not always positively injurious, they at least diminish those qualities which render milk so valuable an article of food. Many of the frauds practiced with it in Paris and other European cities, have probably never been here introduced: but there are some facts in regard to this liquid which deserve to be noticed in a work of this kind.

“Milk is a white opaque liquid, yielding about ten or twelve per cent. of solid matter on being evaporated to dryness by a steam heat. Its specific gravity is about 1,030. It is usually slightly acid, as may be seen by its reddening litmus paper; but occasionally it is an alkaline. When diluted with water it presents a bluish colour, instead of that dull white, which is characteristic of the pure substance.

“Various instruments have been invented for the purpose of determining in an easy and certain manner the comparative goodness of samples of milk. They are known by the names of *Lactometers*, *Creamometers*, *Galactometers*, and *Lactoscopes*. Some of these are similar in construction to the hydrometer, and their employment is founded upon the assumption that the specific gravity of milk is a true criterion of its richness and purity. But it is a serious objection to such instruments that the milk of different cows varies in its density, and that

the food, the age and state of health of the animal also effect considerable changes in this respect. It is this variation in the specific gravity of pure milk which renders it difficult to detect even considerable additions of water. From the researches of Lassaigue it appears that mixtures of milk and water, in which the proportion of the latter is less than one-fourth or one-third, have a density not sufficiently reduced below the *minimum standard* of pure milk, to be determined by the lactometer.

“The *Creamometer* consists of a glass tube about a foot long and half an inch in diameter, supported upon a foot. If milk is poured into such a tube and permitted to repose there, the cream which it contains rises to the surface and forms a cake, the bulk of which, when compared to the bulk of the milk, denotes the comparative goodness of the sample. The tube should be graduated into ten parts, and the two upper parts divided each into ten others. It is then easy to determine at a glance the *per centage* of cream contained in any sample of milk submitted to trial. It should be previously ascertained how many parts of cream are contained in one hundred parts of genuine new milk. Some hours are required to perform an experiment with this instrument, and this seems to be the principal objection to its general employment.

“Among the adulterations of milk that have been noticed, are the addition of flour of various kinds, starch, white and yolk of eggs, gum arabic, dextrine, emulsions of various seeds, chalk, plaster of Paris, bicarbonate of soda, and even the cerebral matter of the sheep. Many of these may be easily detected, as flour and starch, by the blue colour which they give on the addition of the tincture of iodine. The presence of eggs may be ascertained by filtering the milk and then boiling the filtered liquor, when flocks of albumen more or less abundant will be formed. Gum arabic, unless added in large quantity, has very little effect upon the density of milk, but such addition is too expensive to be advantageously practiced. The taste of dextrine is too disagreeable to be employed as an adulterant. Chalk and plaster of Paris, if used, will subside upon setting aside the milk and can be then detected by the appropriate tests.

“There is no doubt that these supposed adulterations have been greatly exaggerated, as most of the substances are easy of detection, and do not after all answer the purpose for which they are said to be employed. The frauds which are known to be extensively practised with milk, are the removal of the cream, dilution with water, and the addition of bicarbonate of soda to neutralize its acidity. I have already referred to the difficulty which attends the detection of water in milk unless added in the proportion of a fourth or a third part. The peculiar color of such diluted milk would be a good test, if it



were not that expert *manufacturers* add some coloring material, as annatto, the juice of the carrot, turmeric, &c., to conceal the change in this respect. The presence of bicarbonate of soda may be ascertained by its effervescence on the addition of an acid, as it is generally added in excess. Cases are referred to in which this salt has been used in such quantity as to cause the death of children who have used milk thus adulterated.—(*Garnier and Harel, Des Falsifi. des Subs. Alimentaires.*)

“But the deterioration which milk suffers from other causes is equally worthy of consideration. I refer to the effects produced upon this liquid by the different influences to which the animal is subjected, as food, state of health, fatigue, &c. It is well known that various articles eaten by cows pass rapidly into the circulation and can be detected in the milk. Thus, milk has a yellow colour when cows eat the marsh marigold (*Caltha palustris*); a bitter taste, when they eat wormwood; and the strong taste and colour of garlick, when they pasture in fields where this plant is abundant. The purity and healthfulness of milk must, therefore, depend very greatly upon the food with which cows are supplied. The diseases of these animals, whether induced by improper food or otherwise, must also have an important influence upon the quality of their milk. The remarkable milk sickness of the Western States affords a striking illustration of the correctness of these statements. It is not without reason, therefore, that the great mortality among children in Paris is ascribed chiefly to the bad quality of the milk with which such a large number are constantly fed. It is said that the cows whose milk is intended for infants, are kept in close and warm stables, for the purpose of increasing the quantity of the liquid. But tubercles have been found in the lungs of almost all these cows in Paris and its vicinity.—(*Garnier and Harel.*)”

“NITROUS OR HYPONITROUS ETHER.—*Sweet Spirit of Nitre*, (*Spiritus Ætheri Nitrici*, U. S.) is a mixture of nitrous ether and alcohol in variable proportions. It is a colourless volatile liquid, with a fragrant ethereal odour and a pungent, aromatic, sweetish taste. It boils at about 160°, is very inflammable and burns with a whitish flame. Its specific gravity is 0.834 U. S., to 0.847 Ed. It generally reddens litmus slightly, but when perfectly pure should be without any acid reaction, and should volatilize without leaving the slightest residue.

“This article is very extensively adulterated. Wholesale dealers usually keep two, or even three, qualities of this preparation; the inferior ones being obtained by diluting the best with different quantities of water, or spirit of wine and water. ‘Some years since large quantities of spirit of wine, flavored with hyponitrous ether, were imported into London, under the

name of spirit of nitric ether, in order to avoid the duty payable on it as spirit of wine.'—(*Pereira.*) The extent of this mixture can sometimes be determined by its specific gravity, but at others it is a fallacious criterion.

“Sweet spirit of nitre often contains acetic acid or some of the acids of nitrogen in such quantity, as to redden litmus strongly and to cause an effervescence when added to carbonate of potassa. If a deep olive colour is produced with the protosulphate of iron, it indicates the presence of a nitrogen acid. The presence of these acids increases the specific gravity of the sweet spirits of nitre; but the addition of hyponitrous ether produces the same effect. A specific gravity lower than the U. S. standard would probably show that the alcohol is stronger than it should be, and either in the proper amount or in too large proportion.

“When the specific gravity of sweet spirit of nitre is as high as that assigned by the Edinburgh College, the fraudulent addition of water and alcohol may be detected by agitating it with twice its volume of concentrated solution of chloride of calcium. If the article is of full strength, twelve per cent. of ether will slowly separate, which is twelve twentieths of the quantity present. If less ether separates, it shows the presence of too much water and alcohol. This test, however, is said not to be applicable to the U. S. preparation.—(*U. S. Dispensatory.*)”

“OPIUM.—*Opium, U. S.*—This is the name given to the inspissated juice which flows from incisions made in the unripe capsules of the *Papaver somniferum L.* It is only effectively obtained in warm climates, and the chief supply is procured from Turkey and India. It is a very heterogeneous compound, consisting of at least a dozen proximate principles, of which the most important are, *Morphine, Narcotine* and *Codeine.*

“Several varieties of this drug are described by writers on the *Materia Medica.* Our market, however, is almost exclusively supplied with the *Turkey Opium*, which is chiefly shipped from the port of Smyrna, and hence often called *Smyrna Opium.* It occurs in irregular masses, more or less flattened, covered with pieces of the dried leaves and with the reddish winged capsules of some species of *Rumex*, and sometimes also with poppy leaves. It has a rich reddish brown or fawn colour, a waxy lustre when cut, a tough consistence and a tolerably compact texture. Its odour is heavy, strong and narcotic; its taste bitter, arid and nauseous.

“There is no article in which frauds have been more extensively practiced than in opium. Even the Turkey opium, the best kind in market, one-fourth part generally consists of impurities. Among the substances employed as adulterants



are, the extracts of the poppy, lettuce, and liquorice, gum Arabic, gum tragacanth, aloes, the seeds of different plants, sand, ashes, small stones and pieces of lead. An Armenian, who had been for many years engaged in the extraction of opium, informed Mr. Landerer, of Athens, that not a single cake of opium comes from the East without having been mixed in the soft and fresh state with grapes freed from their seeds and crushed. Another adulteration was said to consist of the epidermis of the capsules and stalks of the poppy, pounded in a mortar, and mixed with white of egg.—(*The Chemist*, Sept., 1843.) Some samples of opium, also, which are apparently pure, are found to be totally destitute of the active principle of the drug.

“It is by no means easy, except by actual trial upon the system, to determine the quality of a sample of opium. The proportion of water may be judged of by the consistence, or, more accurately, by the loss on drying of a given weight of the drug. Many of the other impurities may be detected by a careful inspection. But the only certain test of the goodness of opium is to ascertain the proportion of morphine which it contains. This can only be accurately done by carefully following out some of the processes for the preparation of morphine. A pound of good opium should yield about a sixteenth of its weight of this alkali.—(See *Graham's Chemistry*.)”

“**PERUVIAN BARK.**—Under this general term are included the barks of various species of *Cinchona*, among which may be enumerated, as those of most frequent occurrence in market, the *Cinchona Calisaya*, or *Yellow bark*, *Cinchona rubra*, or *Red bark*, and the *Cinchona corona*, or *Pale bark*. Besides these there are several other kinds, but there is still much uncertainty in regard to their true botanical characters. It is well known, however, that their medicinal powers depend upon the alkaline principles which they contain. The most remarkable of these is *Quinine* or *Quinia*, the salts of which have almost entirely superceded the use of the powdered barks. Of this active principle the different varieties of *Cinchona* are known to yield very different proportions, and upon this circumstance their relative value depends.

“The frauds that are practiced with reference to *Cinchona* bark principally consist in the substitution of the inferior true barks for the finer kinds; the admixture of bark which has been exhausted by successive macerations and then dried, with good bark; and the substitution of spurious *Cinchona* barks for the true one. Of the false barks, three in particular have been described, viz: Piton bark, Caribbean bark and Pitaya bark. They have all a disagreeable, bitter taste, not aromatic. The other adulterations, however, are very diffi-

cult of detection, as it is almost impossible to judge of the quality of bark (especially if in powder) by its physical properties. The quality of the yellow bark is best determined by the proportion of quinine which it yields. As the process employed is difficult of application on a small scale, the Edinburgh College has given the following test, by which the greater part of the alkali contained in a sample can be readily procured in an impure state: A filtered decoction of one hundred grains in two fluid ounces of distilled water gives, with one ounce of concentrated solution of carbonate of soda, a precipitate, which, when heated in the fluid, becomes a fused mass, weighing when cold two grains or more, and easily soluble in solution of oxalic acid. Manufacturers of disulphate of quinine generally, however, employ the test proposed by Guibourt, by which the quantity of lime contained in a sample is determined, it having been ascertained that those barks which are most rich in quinine also contain most lime. The process is as follows: 'Mix the bark in fine powder with water so as to form it into a fine paste; place this on paper, filter and add sulphate of soda to the filtered liquor as long as the white sulphate of lime is precipitated.'—(*Neligan.*)"

In addition to the above we would add that of tannic acid which has a powerful affinity for the vegetable alkalies, and when added to an infusion of bark, containing kinate of quinine in solution, it immediately unites with the alkali, forming an insoluble tennate, which forms a copious flocculent precipitate. If this is not produced the bark may be considered as destitute of quinine. This is a very delicate test, and can be easily applied by any person.

"QUININE OR QUINIA.—This is one of the vegeto-alkalies usually obtained from the yellow bark, *Cinchona Cordifolia Mut.* When pure, it occurs in white needle-form crystals, which are intensely bitter, soluble in 200 parts boiling water, almost insoluble in cold water, and highly soluble in alcohol and ether. It forms salts with acids, which are generally crystallizable. It is not used in its uncombined form. It is liable to be mixed with cinchonine, for which the tests will be found in the next article.

"QUININE, DISULPHATE OF.—*Quiniæ Sulphas, U. S.*—*Sulphate or Subsulphate of Quinine.*—This salt, which is now largely manufactured, crystallizes in delicate white needles, which are very light and have the appearance of amianthus. It is efflorescent, intensely bitter, requires about 740 parts of cold, and 30 parts of boiling, water for solution. It is soluble in 60 parts of cold alcohol, but in much less of hot. Very



soluble in dilute sulphuric acid. It possesses the remarkable property of becoming luminous when heated a little above the boiling point of water, especially when rubbed.

“In consequence of the value of this salt it is often adulterated with various substances, as sugar, gum, starch, stearine, ammoniacal salts, sulphates of lime and magnesia, salicine and cinchonine.

“*Detection of Sugar, Gum and Starch.*—Sugar may be detected by dissolving the suspected salt in water, and adding precisely so much carbonate of potassa as will precipitate the quinine. The sugar may be separated by evaporating the filtered solution to dryness, and dissolving the residue by boiling alcohol. Gum and starch are left when the impure disulphate of quinine is digested in strong alcohol.

“*Detection of Ammoniacal and Earthy Salts.*—If ammoniacal salts are mixed with the disulphate of quinine, the fraud may be detected by the odour of ammonia which is given out when the mixture is put in a strong solution of potassa. And if the suspected disulphate is subjected to a red heat in a platinum spoon, the residue, if any, consists of earthy matters, the precise nature of which may, if necessary, be determined by subsequent trials.

“*Detection of Stearine.*—The presence of stearine may be ascertained by treating the suspected disulphate of quinine with water acidulated with muriatic acid. The disulphate is dissolved, but not the stearine. If the mixture is heated, the stearine swims on the surface of the liquor, and forms little transparent drops, which become opaque when the liquor cools.

“*Detection of Salicine.*—Recently, disulphate of quinine has been largely adulterated with salicine. The presence of this substance, when in considerable proportion, can be easily detected by the addition of sulphuric acid, which produces a fine red colour, while with the disulphate this acid forms a colourless solution. Where only a small proportion of salicine is mixed with the disulphate the following process may be employed: Pour on two parts of the disulphate twelve parts of concentrated sulphuric acid. The salt will be dissolved and coloured brown. Add 250 parts of distilled water; the brown colour disappears, and the salicine remains white and suspended in the liquid. The salicine is not dissolved by this acid solution of sulphate of quinine. Filter and collect on a glass, and the white bitter powder will give, with cold concentrated sulphuric acid, the vivid red reaction. The water should be added in small quantities at a time, and we should cease to add it when a precipitate is obtained which separates with facility.

“*Detection of Cinchonine.*—The samples of disulphate of quinine are now rarely free from the corresponding salt of

cinchonine. Various processes have been suggested for the detection of the mixture. One of these depends upon the different action of chlorine upon the salts of quinine and cinchonine. If the disulphate of quinine be dissolved in a large quantity of chlorine water, and some water of ammonia is added, a deep green precipitate is formed, and the liquor also becomes intensely green. A salt of cinchonine similarly treated forms a dark red solution. Another mode consists in dissolving a portion of the mixed salt in water, and precipitating the solution with ammonia, collecting the precipitate, and boiling it in alcohol. If any cinchonine is present, it will be deposited in crystals as the liquor cools, while the sulphate of quinine remains in the mother liquor. According to M. Calvert, a saturated solution of disulphate of quinine in cold water gives, with a solution of chloride of lime, a precipitate, soluble in an excess of the latter; while a solution of sulphate of cinchonine of the same strength, treated in the same manner, gives a precipitate which is insoluble in a great excess of the reagent. The same effect is produced with lime water and solution of ammonia; and solution of chloride of calcium, while it furnishes a precipitate with a solution of sulphate of cinchonine, yields none with a solution of disulphate of quinine. For other distinctive characters of quinine and cinchonine, and their salts, see *Pereira's Materia Medica*.

“It should be added that the disulphate of quinine sometimes contains water in such an undue proportion as to constitute an adulteration. This is the case if one hundred parts of the salt lose more than eight or ten parts of their weight by the application of a gentle heat. Finally, to complete the catalogue of frauds, the bottles which come to us from France, purporting to contain an ounce of the disulphate, very rarely yield that amount; the reduction of weight being either the result of an understanding between the manufacturers and the wholesale dealers, or of the direct removal of a portion of the salt after it has been brought into this country.”

“SILVER, NITRATE OF.—*Argenti Nitras*, U. S.—This salt, when pure, is in the form of white, tabular crystals, which ought to remain dry in the air, and when in a dry state ought not to blacken by exposure to the light. When heated on charcoal it deflagrates. It is soluble in its own weight of cold, and in half its weight of boiling, water. Upon adding muriatic acid to the solution, an abundant white precipitate is produced, which darkens by exposure to the light, is insoluble in nitric acid, but entirely soluble in ammonia.

“The *fused* nitrate of silver, or *Lunar Caustic*, is prepared by fusing the pure salt, and pouring it into heated moulds. In this state it should have the appearance of a grey or nearly white crystalline mass. It is usually, however, of a blackish



colour, owing either to carelessness in the manufacture, or to the presence of organic matter, which under the influence of light causes a reduction of a portion of silver.

"Nitrate of silver is often largely adulterated. Thus it contains free silver from having been exposed to too high a heat, the nitrates of lead and copper, from the impurity of the silver used in its preparation, and chloride of silver from that of the acid. From fraudulent admixture, also, it is sometimes contaminated with nitrate of potassa.

"*Detection of Free Silver and Chloride of Silver.*—Dissolve the suspected lunar caustic in about its own weight of water. If it leaves more than a very slight dark residue, it contains either free silver or the chloride of silver. Add ammonia to this residue; the chloride of silver will be dissolved, while the free silver remains. From the ammoniacal solution the chloride may again be obtained by evaporation, and its amount determined. The free silver which remains after the separation of the chloride, may be dissolved in nitric acid and converted into a chloride by the addition of muriatic acid. Should any oxide of copper be contained in the insoluble residue, its presence will be detected by the blue colour caused on the addition of ammonia.

"*Detection of Nitrates of Copper and Lead.*—Dissolve a known quantity of the suspected nitrate in a large quantity of water, and after having separated the insoluble matter by filtration, add muriatic acid. All the silver will be thrown down as an insoluble chloride, while the chlorides of copper and lead, if the quantity of water is sufficiently large, will be held in solution. Filter the liquid, and then add sulphuric acid; if any lead is present an insoluble sulphate of lead will be formed. From the filtered solution copper may be precipitated, if present, as deutoxide, by caustic potassa. The precautions which are required to effect this separation are described in the article SILVER.

"*Detection of Nitrate of Potassa.*—To detect this salt, lunar caustic is to be dissolved in water, and the solution precipitated by muriatic acid as in the process for the detection of the metallic nitrates. The filtered solution is then to be neutralized with ammonia and treated with sulphuretted hydrogen to separate any metals that may be present. The filtered solution, if it contains nitre, will, on evaporation, leave a salt easily recognized by its properties as a nitrate. If thrown upon burning coals it will deflagrate and leave a fixed residue.

"By operating upon a given weight of lunar caustic the proportions of the above adulterants may be easily determined. The real value of any sample may be accurately ascertained by dissolving it in water, precipitating it by muriatic acid, and determining the proportion of pure nitrate of silver by the weight of the dried and slightly heated chloride of sil-

ver. 100 parts of the nitrate of silver should give nearly 85 of the chloride of silver. An American dollar will yield nearly one ounce and a quarter of pure nitrate of silver."

We will next notice what he says in relation to wine, an article that is largely adulterated. When pure it may frequently be used as a medicinal agent, with much benefit; but as generally found in market, it cannot be depended upon; for which reason, it is not ordered as much as it otherwise would be.

"WINE.—*Vinum*, U. S.—Wine is a transparent liquid, of a yellowish, reddish yellow, or deep red colour. It consists principally of water and alcohol; but a great number of other substances are also found in it, as sugar, fecula, gluten, extractive, colouring matter, tannic acid, bitartrate of potassa, tartrate of lime, volatile oil, œnanthic ether, &c. It is upon the volatile oil that the peculiar taste and odour of wine, called the *bouquet*, is supposed to depend. The proportions of the ingredients vary greatly in the different kinds of wine. Tannic acid and colouring matter are in larger quantity in the red wines than in the white, while the alcohol ranges from nine or ten to twenty-five per cent.

"Numerous frauds are practiced with wine, and it is to be regretted that chemistry does not yet furnish the means of detecting them with all certainty. The most common of these are the mixture of wines of different vintages, and the addition of water, of brandy, of colouring matters, and of various saline substances.

"*Colouring Matters*.—The colour of red wines is due to the skins of the red raisins, with which the *must* is fermented. These wines also derive from this source the tannic acid to which they owe their astringent taste and their change from a red to a brownish black colour, upon the addition of a soluble persalt of iron.

"Among the substances said to be used for the purpose of giving a red colour to wines, are logwood, Brazil-wood, beet root, and the fruit of the elder and of the sloe. The process most to be relied on for determining their presence is that of Nees d'Esenbeck. It consists in dissolving one part of alum in eleven parts of distilled water, and one part of carbonate of potassa in eight parts of water. The suspected wine is mixed with an equal volume of the solution of alum, which renders its colour more brilliant; to this mixture the alkaline solution is then added, little by little, taking care not to decompose all the alum. The alumina is precipitated with the colouring matter of the wine in the form of a lake, which, both before and after the addition of the potassa, assumes tints



which vary with the nature of the colouring matter. In pure wine the solution of alum produces a lake of a dirty grey colour, which an excess of the alkali partly dissolves, leaving the residue of an ash grey colour. If the wine has been coloured by any of the substances above mentioned, the precipitate left, after following out this process, is some shade of blue, violet, or rose.

*"Detection of Carbonates.*—The carbonates of lime, potassa and soda are sometimes employed to neutralize the acidity of certain wines. The first of these may be detected by evaporating a portion of the wine to about one-eighth its volume and adding to the residue twice its volume of alcohol of sp. gr. 0.921. By this means the sulphate and tartrate of lime, which naturally exist in the wine, are precipitated, and the acetate of lime dissolved. The solution is then filtered, and carefully evaporated to dryness. The filtered solution of this residue in water gives an abundant white precipitate with oxalate of ammonia, and evolves the odour of vinegar when decomposed by sulphuric acid.

"Carbonate of potassa is sometimes added to wine for the purpose of stopping the fermentation and of saturating the acetic acid which it may contain in excess. In this case acetate of potassa will exist in the wine. To determine the presence of this salt, evaporate a portion of the wine to a syrupy consistence and agitate the residue for some minutes with a small quantity of alcohol of the sp. gr. of about 0.842; upon the application of heat the acetate of potassa will be dissolved. The liquid after filtration is divided into two parts: the one is treated with a solution of the chloride of platinum, which gives with potassa a yellowish precipitate; the other is evaporated to dryness and the residue moistened with strong sulphuric acid, which liberates acetic acid, known by its peculiar odour. It should be stated that pure wine always contains acetate of potassa, but the quantity is so minute that these tests produce it with scarcely perceptible results.

"When wine is saturated with carbonate of soda, the tests employed for acetate of potassa give only negative results. In this case, the residue of the evaporation should be treated with alcohol of the sp. gr. of 0.920, which dissolves the acetate of soda. This solution is then evaporated, the residue dissolved in water, the solution filtered and slowly evaporated. If acetate of soda is present, crystals will be formed which have a sharp and slightly bitter taste, and are decomposed by strong sulphuric acid.

*"Detection of Lead.*—The addition of white lead or litharge to sour wines, to neutralize their acidity and to render them sweet, was formerly often practised, but is now rarely resorted to. The presence of lead in wine may be detected as follows: Evaporate a portion of the suspected liquor to dryness

in a Berlin ware capsule, collect the dry residue and heat it to redness. Triturate the coaly mass with twice its weight of nitrate of potassa, and throw the mixture, a little at a time, into a small porcelain crucible heated to redness. The nitrate of potassa causes the combustion of the charcoal, and a fused mass, which contains the lead, remains. If the matter retains a deep brown colour, the ignition may be repeated with another portion of the nitrate. The residue is then treated with water acidulated with nitric acid, until it is completely dissolved. This solution is then filtered, and if it contains a salt of lead it will give a white precipitate on the addition of a few drops of sulphuric acid; a yellow precipitate with solution of chromate of potassa; and a black precipitate with sulphuretted hydrogen or hydrosulphuret of ammonia.

“*Detection of Alum.*—Alum is sometimes added to wine for the purpose of heightening its colour and of giving it an astringent taste. If the wine is red, mix it with a sufficient quantity of animal charcoal previously well washed with muriatic acid. When it has been deprived of its colour, filter, evaporate the filtered liquor to one-third of its volume, and then filter it a second time to remove the coloured precipitate which has been formed during the evaporation. If alum is present, the solution will have an astringent taste, and will give, upon the addition of potassa, a white precipitate soluble in an excess of the alkali; it will also cause, with chloride of barium, a dense white precipitate, insoluble in nitric acid.

“*Detection of Brandy.*—The addition of brandy to poor wines is often practised for the purpose of giving them the more strength to resist decomposition. If the proportion of brandy is large, and the mixture recent, its presence can sometimes be detected by its deflagration when thrown into the fire; but when the mixture is of long standing, this test is of no use. The proportion of alcohol in wine can be determined by distillation, but we have no means of distinguishing that which belongs naturally to the wine from that which has been added as an adulterant.”

J. McL.

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#### ARTICLE IX.

*An Anatomical description of the Diseases of the Organs of Circulation and Respiration.* By CHARLES EDWARD HASSE, Professor of Pathology and Clinical Medicine in the University of Zurich, etc. etc. Translated and edited by E. W. SWAYNE, M.D., Physician Extraordinary to H. R. H. the Dutchess of Kent. Philadelphia: Lee & Blanchard. 1846. pp. 277. 8vo. (From the Publishers.)

Pathological Anatomy is the only sure foundation upon



which those important parts of the fabric of medical science, diagnosis and pathology can rest. If there are any who doubt its value, it must be from not having sufficiently reflected upon the history of medicine, or noticed with attention the obstacles that have most opposed its progress. The earlier medical writers excelled in minute observation and description of symptoms. They sketched the portrait of disease with a master's hand, but for want of a knowledge of the changes which the organs undergo, their descriptions are comparatively useless at the present day. How are we to know whether the cases they describe as consumption were not bronchitis? What assurance have we that their typhus fevers of old persons, and occurring in winter, were not pneumonias? Certainly none whatever; and this fact is so well known that recent authors have found former observations so little to be depended upon, that they have determined to reject them altogether, and commence anew the acquisition of facts which may be relied upon as authentic. We have but to look at those departments of medical science in which much progress has been made, and the services rendered by pathological anatomy will be apparent.

Diseases of the brain, of the heart, inflammation of the veins, and many others of obscure character, have been rendered familiar by post mortem examinations. By the term pathological anatomy we do not mean simply the changes left in an organ by disease which has resulted fatally, but a history of the changes of structure which an organ undergoes during the progress of the malady—in other words, an *anatomical* history of disease.

Such is the view of our author, who possesses ample knowledge and means for doing justice to the subject, having for a length of time pursued his researches at Paris, in a school which numbers among its teachers such names as Andral and Louis. This work, without being a compilation, embraces the most important outlines of the science as developed by others, but in several chapters exhibits originality, and in others a candid and thorough criticism which mark a superior mind. We shall not attempt to follow him through his description of the lesions of the circulating and respiratory organs, but prefer to give, as samples of the work, a few extracts, selecting such as from their originality possess public interest.

Of this kind will be found the following section upon an obscure affection.

“A product of inflammatory action deserving of notice here, are the *fibrinous coagula* occurring within the cavities of the heart. Formerly much importance was attached to these so-called polypi of the heart, and no small disposition was evinced to regard them, not only as the immediate agent of death, but likewise as the main source of many chronic diseases of the respiratory and circulating organs. Pasta combated this extravagant notion, but went too far in asserting that every polypoid formation within the heart was the result of stagnation of the blood after death, and that even fibrinous depositions within aneurismal sacs were impossible during life. Afterwards, when organic diseases of the heart were more minutely studied, fibrinous coagula became the subject of repeated research, and it is Kreysig's merit to have shown that, although they could not be looked upon as either the cause or the produce of chronic disease, they yet might be the result of an inflammatory process affecting the inner surface of the heart; in short, that a polypous carditis must be recognized. Bouillard arrives at the same conclusions, but, on the other hand, perhaps assigned undue weight to endocarditis in the production of polypi.

“Of the blood coagula, two types are commonly acknowledged, the distinctions between which are essential and obvious; there are, however, so many transition-forms, that it is often extremely difficult to come to a definite conclusion. The first type is characterized by the simple fibrinous clot, so common in robust individuals. It is yellow, pellucid, of the elasticity of jelly, of a smooth shining surface, and fashioned to the shape of the heart's cavities, especially at the origin of the pulmonary artery, where it often appears moulded with a faint impression of the valves. It seldom fills the cavities however, and never adheres to their parietes. This gelatino-fibrinous mass occasionally covers a clot of coagulated blood, in the same proportion as the buffy coat the crassamentum in blood drawn from a vein; it, however, frequently constitutes the bulk of the concrement, and contains only a few portions striated or dotted blood-red. Polypi of this description, often proceeding with flattened ends into the large vessels, and being usually of greater volume in the right half of the heart than in the left, are developed during the agony, or after death; but result, in no instance, from disease of the encardium. The second type of polypoid coagula is characterized by opaque, white or dingy-grey, soft, filamentous and elastic concrements, consisting of several irregularly superimposed layers with an uneven surface more or less firmly adherent, especially in the neighborhood of the valves, to the heart's



parietes, and insinuating their fangs among the columnæ car-næ and tendinous cords. They rarely form a single coherent mass like the foregoing species, but rather unequal and distinct accumulations, connected together through the medium of coagulated blood, or else of a brown or grey pultaceous substance. In rare instances, several of the fibrinous layers include in their centre purulent fluid. At their surface, and even between the different layers, dots and little stripes of blood are discernible. The majority of these coagula are developed during life, and are frequently the *immediate cause* of death. Bouillaud regards them as products of an inflammatory process affecting the encardium, and as being partly secreted by this membrane, partly deposited by the blood while passing over the inflamed parts.

“An unbiased survey of the cases in which these polypi occur, will render it apparent that their development does not necessarily depend on inflammation of the encardium, but that the seat of the morbid action is often, nay, in the majority of instances, remote from the heart. In proving this, the fact should be borne in mind, that certain substances when brought in contact with the blood cause its coagulation, and this the more rapidly, the larger the amount of blood experimented upon, and the more briskly they are agitated and mingled with it. According to the experience of most pathologists, such substances are met with in the blood itself,—tubercle, for instance, cancerous matter, and more frequently pus, which last is particularly efficient in promoting coagulation. These entering the circulation by degrees, will not fail, at whatever part of the body engendered, to accumulate eventually within the cavities of the heart. For it is well known that the ventricles do not empty themselves completely during systole, but retain a small portion of blood; this, being by the shock of the heart’s contraction impelled into the network of the columnæ car-næ, acquires there, under the circumstances above indicated, the opportunity to coagulate; the same relations subsisting, the coagula, at first small, gradually increases in bulk, so as eventually to impede, and ultimately to obstruct the circulation, and after death to present a fibrinous concrement of the character last described. It follows from the foregoing explanation, that even those polypi which contain fluid pus, are not necessarily the product of endocarditis.”

#### “CYANOSIS. MORBUS CŒRULEUS.

“Of late years it has been very generally admitted that the cyanotic state is not symptomatic of one, but of various diseases, both of the lungs and heart. Nevertheless, for brevity’s sake, we shall here use the term *cyanosis* in its older and

familiar acceptation, namely, as denoting a preternatural communication between the right and left compartments of the heart.

“This morbid condition is for the most part dependent upon congenital malformation: as such, however, it is (as clearly demonstrated by J. F. Meckel) not to be regarded as merely accidental, but as subject to the same laws which govern the normal development of the organism.

“A preternatural communication between the two chambers of the heart, and the commingling of arterial and venous blood sometimes consequent thereupon, occurs under a great variety of circumstances. In the following pages, however, our attention will be devoted almost exclusively to those forms in which life is capable of considerable prolongation subsequently to birth.

“The first in importance is an unclosed state of the foramen ovale,—a malformation not only the most frequent of those we have to consider, but at the same time almost invariably a complication of all the rest. Incomplete closure of this aperture, admitting, through an orifice at its margin, the passage of a probe or of the handle of a scalpel, in short, imperfect *valvula foraminis ovalis*, is very often unattended by cyanotic symptoms. Out of 155 individuals, none of whom had manifested any such symptoms, Bizot found the foramen ovale more or less open in 44 instances.

“Where, however, the aperture remains destitute of either a sufficient muscular plug, or an adequate valve, secondary disease of the heart, eventually productive of permanent, or at least of fleeting symptoms of cyanosis, has been invariably known to follow. The marginal edges of the unclosed *foramen ovale* are partly tendinous, partly muscular, sometimes of almost callous hardness. In certain instances the valve or the fleshy plug is variously perforated, the width of the aperture varying from  $1\frac{1}{2}$  to 15 Parisian lines.

“The permanence of *Botalli's duct* appears to be rare, and always coincident with unclosed foramen ovale, and with perforation of the septum of the ventricles.

“A communication between the ventricles, through an aperture in their septum, may coexist with closure of the foramen ovale, and is sooner or later productive of a cyanotic state. Louis has collected 5 cases of the kind (one, that by Jackson, of the English General Whiple); in a sixth related by Otto (Neue seltene Beobacht, p. 49) of a girl aged  $12\frac{1}{2}$ , the right ankle was wanting, and the veins of the trunk opened at once into the right ventricle. Perforation of the ventricular septum is more frequently observed in common with a patulous state of the foramen ovale and of Botalli's duct; for example, in the instance so often cited from Richerand's 'Physiology,' of a man aged 40, or in Nasse's interesting case of a girl aged 19



(*Leichenöffnungen*, p. 162). The aperture in the ventricular septum is mostly situate near the base of the heart, immediately below the origin of the pulmonary artery and aorta; sometimes, however, nearer the apex of the heart, as in Otto's case. This corroborates the opinion of Albert, that the perforation is nearer to the base when the foramen ovale is open, and nearer to the apex when it is closed. The communication between the two ventricles is sometimes direct, sometimes oblique,—duct-like. In the case of a child 13 years old, I once found it crossed by a tendinous band. Its borders are mostly smooth, consisting of fleshy columns: but occasionally, too, of tendinous or cartilaginous hardness. In the cases recorded, the width varies from 2 to 12 lines; it may, however, amount to partial (Bouillaud,—in a child of 4 years) or almost entire (Burdach,—in a youth of 16) deficiency of the ventricular septum.

“The cardiac origin of the great arteries, is liable in like manner to many anomalies, all attended with malformations of other kinds within the heart, mostly proving fatal at an early period under the symptoms of cyanosis, and seldom compatible with prolonged life. In five cases collected by Albers, the pulmonary artery sprung from the left, the aorta from the right ventricle; in all, death ensued within a few months after birth; the two eldest of the children having respectively attained the age of three (Albers) and five (Farre) months. An interesting case is related by Martin, (*Müller's Arch.* 1839, fasc. 3, p. 222,) in which death occurred after the tenth week. In this state mixed blood circulates, occasioned by the open condition either of the foramen ovale, or of Botalli's duct, or else by an aperture in the ventricular septum.—In two cases of Farre's, (an infant of three weeks, and a male child of eight months,) the pulmonary artery arose from both ventricles. The proper aorta gave off the arteries of the head and of the upper extremities only, and united by a thin branch with the descending aorta, which was derived from the pulmonary artery, beyond the point where the latter sent off its branches to the lungs. The origin of the aorta from both ventricles has been more frequently observed. In seven instances (Louis, Albers, Bouillaud, and Meyer) life was long protracted. The most remarkable examples are, of a girl of 9 years (Cerutti), a boy of 13 (Sandifort), a girl of 17 (Albers), and a woman of 25 (Tommasini); a girl of 17, admirably described by Meyer (*Rust's Magazine*, vol. lv. fasc. 1, p. 158). In this malformation the pulmonary artery is mostly very narrow, and its semi-lunar valves, like those of the aorta, are either partial or wholly wanting, being faultily fashioned, or rudimental only.

“Are the preternatural communications between the right and left divisions of the heart, just described as the source of

cyanosis, always to be regarded as *congenital* malformations? Louis answers this question in the affirmative, and as far as concerns the anormal origin of the great arteries, the coincidence of perforation of the heart's walls with a pervious state of Botalli's duct, and with other malformations acknowledged to be congenital, the thing is indisputable.

"It is otherwise, however, with respect to simple perforation of the ventricular or auricular septa. Bouillaud holds these to be in part the result of ulcerous destruction of the muscular substance with subsequent cicatrization, and refers in particular to a case of Thibert, in which the edges of a perforation of the ventricular septum, in a man aged 24, were furnished with a yellowish membranous fringe. There is, however, no mention made of softening of the vicinity, or of other changes of the encardium, usual in ulcer of the heart; moreover, the foramen ovale was open, and precisely in the condition it was wont to be found in a malformation obviously congenital. Meckel and Abernethy believe in the possibility of the foramen ovale *reopening* in advanced age,—especially in disease of the lung. Otto, who seems of the same opinion, adduces 13 cases of dropsical accumulation within the pleural sacs, with strong adhesion, induration, inflammation, or supuration of the lungs, (in one instance with coarctation of the pulmonary artery, in another with ossification of the pulmonary sigmoid valves,) in which the foramen ovale was found open; cyanotic symptoms having for a longer or shorter period preceded death. He particularly refers to the case of a man of sixty who had died of hydrothorax, and in whom the right side of the heart and the pulmonary artery were found dilated; the foramen ovale being indeed closed, but its fossa of such depth as to project like a thin pouch into the left auricle. He looks upon this example as demonstrating the way in which gradual reopening of the foramen ovale may take place. It must, however, be borne in mind that the unclosed state of the foramen ovale may, in several of the 13 cases, and especially in those in which the pulmonary artery deviated from natural, have existed from birth, without betraying itself by any decided symptoms, until some disease in the respiratory and circulating organs supervened; and, again, that the cyanotic symptoms may have sprung from the pulmonary affection alone, imperfect closure of the valve of the foramen ovale (which condition Bizot has shown to be no less frequent than insignificant) being merely a coincidence. In a word, although the possibility of acquired perforation of the heart's septa cannot be denied, no positive example of it has been witnessed.

"The relation of the *Eustachian valve* to the unclosed foramen ovale, first hinted at by Wolf, and more closely investigated by Meckel, is not unimportant. Among 80 hearts examined with reference to this point, he found 43 instances of



open foramen ovale, with the Eustachian valve large, often muscular, and entire, or but slightly reticular; in a woman of sixty in particular, the foramen ovale was an inch wide, and the Eustachian valve two inches long, almost half an inch high, and very strong. In 16, the foramen ovale was closed, and the Eustachian valve absent altogether, or merely rudimental, or else torn to pieces. In 13 the Eustachian valve was very strong, often muscular,—and the foramen ovale closed. In 8 there was hardly any Eustachian valve, and the foramen ovale was more or less gaping. The frequency of this favorable condition for the passage of venous blood to the foramen ovale and the left auricle, cannot therefore be doubted; and the presence of a strong Eustachian valve may be regarded as conducive to a mingling of venous and arterial blood.

“But what are the necessary conditions to this morbid commixture of the blood? This question is forced upon us by a consideration of the fact, that the influence of the mixed blood upon nutrition, shall be very palpable in some patients, and null in others. Indeed, in many cyanotic subjects the energy of the vital functions is unimpaired, (females menstruate regularly, and procreate healthy children, &c.) while others are constantly ailing, highly sensitive with respect to cold and other external influences, stunted in growth, (many emaciate, others again prone to obesity,) and perish, either early in life, or at one of the periods of evolution. In the former instances, therefore, the passage of venous blood into the arterial, must either not occur at all, or but to a slight extent, or only at certain periods. Jules Cloquet and Louis have shown that, apart from the cases in which a preternatural origin of the blood vessels necessarily keeps up an incessant mingling of the two kinds of blood, it does not take place through an orifice in the septa of the heart, when the walls of the two cavities which communicate with each other, are of equal thickness and strength, and scarcely, even where their strength is unequal, provided the heart's orifices are sufficiently ample. And in reality, wherever there is impaired nutrition, those relations are found wanting in various ways. In most cases there is present hypertrophy of the right auricle and ventricle, mostly eccentric, but sometimes also concentric. The walls of the right ventricle are frequently much thicker than those of the left, whence the heart assumes an almost globular shape, and quite a transverse position. Sometimes the left auricle and ventricle are simultaneously hypertrophied, though in not more than a fifth of the cases. The heart is then enormously enlarged, so as to embarrass the neighboring organs more or less, and to deviate from its natural position both behind and below. Under these circumstances, inflammatory phenomena about the heart and pericardium are not unfrequent precursors

of death. In six cases described by various authors, the signs of pericarditis, though for the most part of a modified character, were cognizable.

“ *Coarctation of the right arterial orifice*, which is observed, in a smaller or greater degree, in about one half of the cases, must here exert a most material influence. On some occasions the pulmonary artery, at its commencement, is considerably narrower than usual, and does not dilate, until after the reception of Botalli’s duct, in its pervious state; or there are ossifications at its valves, two of which perhaps are alone present; or in place of the valves there is a transverse membranous expansion, with a minus aperture; or the approach to the pulmonary artery within the ventricle, is contracted, forming a small channel, or, as in Nasse’s case, blocked up by fleshy columns, hardly separate from each other. In all these instances, it is obvious, that the venous blood is more or less readily impelled directly into the left division of the heart. Nevertheless, there being not rarely a concomitant coarctation of the right auricular orifice, whether simple or arising from preternatural formation, or from ossification of the tricuspid valve, the possibility of arterial blood passing into the right side of the heart, especially during diastole, must be admitted,—more particularly where the right chambers of the heart are at the same time dilated. Upon the whole, this last mode of preternatural admixture of the blood must be acknowledged to be highly influential in determining the hypertrophy and ossifications of the right side of the heart, so common in cyanosis; inasmuch as these morbid conditions are otherwise almost entirely restricted to the left side, which in *cyanosis* is for the most part exempt from them.

“ The most remarkable symptom of the organic conditions described, namely, the *blueness of the skin*, was formerly thought to be amply accounted for by the mingling of arterial with venous blood: the simple fact, however, that the decoloration is not permanent through life, deprives the explanation of its weight. The cyanotic phenomena sometimes do not set in until the third, seventh, or fourteenth year, nay, even later,—it may not be until shortly before death; occur periodically only, and at long intervals; are frequently brought on by quick walking, hasty movements, passionate emotions, intercurrent diseases, (hooping-cough, for instance,) external violence, and the like, and thus become permanently established, or else again vanish for a time. If the blueness depended upon the character of the blood, these alternations could not subsist. When, moreover, we reflect that in the foetus, in which mixed blood always circulates, no such decoloration is perceptible; and that in a case by Breschet, in which the left subclavian arose from the pulmonary artery, no alteration of color was visible in the left arm; we feel it necessary to look for other



grounds for an explanation. This was already indicated by Morgagni. Kreysig (*Herzkrankheiten*, vol. ii.) was, however, the first to form a correct view of the subject, and Louis has subsequently demonstrated that the cyanotic tinge results from impeded flow of the venous blood back to the heart, or from thence to the lungs; any obstacle to the entrance of the blood into the right ventricle, or to its exit from thence into the pulmonary artery, being of course, in a high degree, propitious to such stagnation. It may be inferred from the foregoing, that from the organic relations peculiar to cyanosis, the stagnation in question may increase vastly on the preexisting impediments to the circulation being augmented by accidental causes, whether external or internal.

“Among the morbid phenomena in other parts of the organism, incident to cyanosis, there is not one that is not common to disease of the heart generally, and to hypertrophy in particular. Even the bulbous shape of the distal phalanges of the fingers, and the incurvation of the nails, are no more peculiar to cyanosis than to sundry pulmonary disease. A curious circumstance is the alleged tendency to whitlow among cyanotic individuals. Diminutiveness of the spleen, thyroid gland, and renal capsules, as urged by Nasse, is by no means constant, the reverse having been found in several instances.”

“FŒTAL CONDITION OF THE LUNG AFTER BIRTH.—  
ATELECTASIS.

“This disease consists in the imperfect expansion of the lungs by the first inspirations after birth; that is,—in a permanence of the fœtal state, of the new-born infant. It is to be regarded as a disease dependent upon restricted functional development at the time of birth, and not upon any original defect of formation in the respiratory organs. When at all extensive, atelectasis terminates sooner or later in death; under more favorable circumstances, however, in early and complete, or in tardy and imperfect recovery. For, during the first days after birth, it is still possible that the evil may be surmounted by the vigorous penetration of air; whereas, at a later period, organic changes supervene, which forever incapacitate the undeveloped portion of lung from performing its proper office. There is, however, still wanting a complete account of atelectasis, as regards both materials and pathological deductions. I shall now endeavor to furnish as faithful an anatomical description as the case will admit of, the result partly E. Jörg’s and partly my own research.

“An entire lung, or even an entire lobe, is seldom found in a state of atelectasis,—but for the most part only single and scattered lobules. Experience shows that certain portions of

the lungs are especially prone to retain the foetal condition, namely, the inferior lobes of both lungs, and the posterior half of the remaining lobes generally. Still examples occur of several lobules near the anterior surface being found in like manner undeveloped.

“The diseased patches display a brown-red, or rather blueish-red color, which is more intense if the whole lobule is uniformly unexpanded,—in which case, it is marked off by a sharp contour from the surrounding pale-red healthy substance. Where, on the other hand, scattered cells within such a lobule have become inflated, the violet colour is interrupted here and there, and passes by a gradual transition, and without any distinct boundary, into the natural shade. A distinguishing feature of atelectasis is however this, that the above patches upon the surface of the lungs always exhibit a depression, the superincumbent pleura remaining perfectly smooth and polished. A lobe either entirely, or for the most part, in this condition, is never found enlarged, but on the contrary, of much smaller dimensions than the others, and almost as much collapsed as in the foetus; in general deeply imbedded within the thorax, and drawn towards the entrance of the bronchi and blood-vessels. Hence single diseased lobules do not attain the same elevation of surface as the healthy ones with which they are surrounded, but, as already stated, form depressions more or less considerable, so that the general aspect may be likened to the dimples created by emphysema, in adult lungs. Neither by incision or pressure is any crepitation produced, unless where a few air-cells happen here and there to have become expanded. The same delicate reddish froth is never found here as in the healthy parts of the lung, but merely a small quantity of serous, slightly sanguineous fluid. The cut surface appears smooth—uniform,—without a vestige of granular elevations. The whole of the diseased structure is not softened, but rather of a hard character, still without the tenacity of the healthy parts. When a patch so situate is cut off and placed in water, it sinks to the bottom.

“When atelectatic infants die a day or two after birth, it is generally possible to dilate, artificially, the undeveloped parts. The depressed lobule is then seen to rise by degrees to the level of the rest, and to assume the color, permeability, and other characters of sound lungs. Up to this point, had other circumstances been favorable, perfect recovery might have taken place. Where, however the little patients have survived for weeks or months, this inflation seldom succeeds, or only imperfectly. At this junction the unexpanded pulmonary cells are for the most part coherent: a remarkable fact, seeing how long the lungs continue unexpanded in the foetus, without adhesion ever taking place. What ulterior transformations go on in the diseased parts, it is not yet satis-



factorily determined; it is, however, more than probable that not a few endurations and depressions, especially the small calcareous concretions, sometimes occurring without any obvious cause, at particular spots within the lungs, (generally at the back of the inferior lobes,) are referrible in some measure to the above source. At all events, it may be observed generally that, in atelectasis, the boundary line between the diseased and the healthy substance becomes less and less distinct, in proportion as life is prolonged. At the earliest period of infantile existence the contrast is very decided, the diseased parts being immediately surrounded by pulmonary texture in all respects natural and healthy.

“In infants who had died of atelectasis, E. Jörg invariably found the foramen ovale of the heart unclosed; a fact confirmed by myself, but which, at that age, is not unusual. The brain was in a congested state. When death followed shortly after birth, the body had the appearance of being generally well developed, but was extensively ecchymosed; the hands and toes were clenched; and there was foam in front of the nostrils and of the closed mouth. Where, however, the disease had been of some standing, the body was wasted and the skin loose and wrinkled. Jörg remarks, that under these circumstances, both the affected and the adjacent parts are found inflamed, if not in a state of suppuration. The details of Jörg’s cases, however, clearly show them to have been complicated. Inflammation is neither necessarily nor even frequently the sequel of atelectasis, for often as I have witnessed this disease, I have never met with a case of inflammation which could be directly traced to the diseased lobule. I have even seen a case of genuine pneumonia with hepatization of the inferior lobe, one portion of which being *atelectatic*, had not participated in the inflammation, but presented hard, knotty, depressed patches in the midst of expanded, softened, hepatized substance. Lobules retaining the foetal condition, are quite passive in relation to other morbid processes, and especially to inflammation; the examples given by Jörg appear to have been cases of real pneumonia.

“It is here requisite to state that *atelectasis*, with the characteristic features above described, is not always distinguished from other diseases; that condition having, in some instances, not been duly recognized, and, in many more, been confounded with quite dissimilar pulmonary affections. Indeed, the greatest discrepancy of opinion, or rather the greatest confusion prevails, so that I am here under the necessity, however hazardous it may appear, of submitting those discordant views to the ordeal of a critical examination. The French writers on children’s diseases, who first turned their attention to the changes in the pulmonary texture of new-born infants, refer *atelectasis* chiefly, if not exclusively, to the head of *pneumonie*

*lobulaire.* Several German authors have, without further inquiry, adopted this view, (Vernon, *Der Arat am Krankenbette der Kinder*, Wien, 1838, vol. ii. p. 54, &c. ;) while others, admitting the peculiarities of atelectasis when associated with ordinary pneumonia, continue nevertheless to connect it, either directly or indirectly, with the same inflammatory process. It will not be difficult to show wherein lies the essential difference between the two. In atelectasis, the coloring of the diseased portions of lung always approaches more to a violet, their exterior appearing smooth and glistening, so as to contrast with the dull, brown-red surface of inflammation. In inflammation, again, the diseased portions are preternaturally distended, while in atelectasis they are collapsed, and inferior even to the healthy texture in volume,—but susceptible, provided the disease has not lasted too long, of artificial inflation, and capable, through its means, of acquiring a perfectly natural appearance. In inflammation, the pulmonary texture is softened, in atelectasis it is hard, and the cut surface is not granular, but smooth. Where no complication exists, the anatomical characters of a first or third stage of pneumonia are not discoverable either in or near the diseased patch; in short, we have nothing like pneumonia except the solid, non-crepitant mass, which has been confounded with the second stage of that disease, namely, with red hepatization. Where single pulmonary cells have been found dilated in the midst of an undeveloped lobule, the absence of softening, and of the peculiar, congested, humid character of its texture, offers a wide difference between it and the first stage of pneumonia. A portion of lung retaining its foetal condition allows a little thin, dark, apparently natural blood to escape upon pressure: in the first degree of pneumonia a tolerable quantity of a turbid, bloody fluid, mingled with fibrin, and with a few minute air-vesicles,—in red hepatization, a tenacious dirty-brown reddish,—in grey hepatization, a large proportion of grayish-yellow purulent fluid may be expressed. Atelectasis usually affects both lungs,—pneumonia is, for the most part, confined to one. Finally, the secondary phenomena attendant upon pneumonia, as inflammation of the pleura and of the bronchial mucous membrane, softening of the bronchial glands, fibrous concretions within the heart's cavities, &c., are wanting in atelectasis. But the peculiar characters of this foetal condition of the lung are only thus marked during the first few weeks after birth; subsequently, when, as already stated, ulterior changes take place, it becomes extremely difficult to form an exact diagnosis from mere cadaveric inspection.

“Jorg observed atelectasis in children, in whom the first act of breathing had been imperfectly accomplished, either because they were puny and feeble, or because they had been hurried into the world before placental respiration had been



altogether suspended, and the necessity for pulmonary respiration become sufficiently potent to stimulate all the muscles of respiration. He therefore concluded, that it was due to the inhaled air not sufficing to effect complete expansion of the lungs; a view corroborated both by the symptoms and course of the affection. This partial introduction of air might be deemed at variance with the physical laws of respiration, inasmuch as the atmospheric pressure must necessarily distend the entire lung equably, not to the exclusion of a lobe, and, still less, to that of a lobule. The objection, however, falls to the ground, when it is considered that the operation of these laws is the result of previous muscular action. Moreover, there is a great analogy between the pathological relations of primal respiration and those of many other affections,—pleurisy, for instance, (see that article,) where the one half of the chest—and especially in partial pleurisy, where certain portions—do not at all share in the movements of the remainder,—and where, again, after the absorption of circumscribed empyema, those very portions collapse and become totally inert, a partial deformity of the chest being the well-known result. We need, therefore, be at no loss to understand how defective breathing may originate in a merely partial activity of the intercostal or other respiratory muscles. It ought to be added, that such portions of the lungs as commonly require several forcible inspirations for their due expansion, are especially prone to remain in the foetal condition. To conclude it can hardly appear singular that atelectasis should be generally more extensive in the right lung, when we call to mind how the capacity of that half of the thorax is diminished by the great size of the liver in the foetal state.

“Atelectasis has been confounded with pneumonia by most writers on the diseases of children, as their own publications amply prove; for we find specified, under ‘infantile pneumonia,’ so much that is peculiar and enigmatical,—so many deviations from the same disease in the adult, as to render it obvious that two maladies of quite a dissimilar nature are brought under one rubric. Even the account they give of the appearances after death, are in many instances conclusive as to the justness of the above assertion; and that without reckoning the previous symptomatic relations,—namely, the frequent absence of true inflammatory phenomena, the want, or irregular accession of fever, and the very slender information derived from percussion and auscultation. The existing difficulties have induced several writers to assume a double form of infantile pneumonia. Rilliet and Barthez distinguish an acute and chronic type: the first occurs in children, somewhat advanced, commencing with the symptoms of catarrh, and resembling in general the pneumonia of adults; the chronic form, on the other hand, assails for the most part new-born

infants, and agrees, in symptomatic and anatomical characters, very closely with atelectasis. Thus Billard affirms congestion to be more common in infancy,—true hepatization at a more advanced period; and Heyfelder (l. c. p. 140) confirms the remark made at the hospital for sick children at Paris, namely, that in children beyond the sixth year, pneumonia bears a close affinity to that in the adult. But this division of cases does not remove the difficulty; because, as Gerhard has shown,\* atelectasis chiefly concerns infants not above twelve months old. Cruse, who very properly rejects the idea of atelectasis being a pneumonia or bronchio-pneumonia, met with genuine inflammation of the lungs in young infants very rarely, and found the after-death appearances to bear a resemblance to those of the disease in adults. His assertion, however, that in quite young infants this inflammation assumes only exceptionally, if ever, the same form as in adults, is in contradiction with experience,—so far at least as the anatomical characters are concerned. Again, the views promulgated with reference to the organic changes affecting the pulmonary texture, further evidence the obscurity and confusion that prevail. Valleix in his otherwise valuable work (p. 195), on the one hand, declares the pneumonia of children (though confounding it with atelectasis) to be identical with that of adults; whilst on the other he is perplexed by certain incongruities, really belonging to atelectasis. His greatest difficulty is, to account for the ‘*hepatized*’ patches being always hardened, instead of softened, and for their cut surface being smooth, instead of granular. In the new-born child he never met with those secondary results of pneumonia, so constant in adults, and whatever has been encountered of that nature by others, he is forced to ascribe to some other morbid source. He also pointedly adverts to his own experience, as well as to that of others, touching the rarity of pleuritic or bronchitic complication. Billard (l. c. p. 534) expressly seeks to show that this disease essentially differs from the pneumonia of adults. He says: ‘the pneumonia of the new-born obviously arises from stasis of the blood in the lungs, the stagnant blood operating as a foreign body,’ &c.; and again, ‘The cause of the inflammation is purely mechanical, and it is not to be wondered at that the pneumonia is very circumscribed, and indeed limited to the patches originally affected.’ Seifert (*Die Bronchial-pneumonie der Neugeborenen*, &c. 1837,) in a like manner compares the state of the lungs in question with hypostasis, (where, however, softening takes place, and not hardening,) the inflammation being rather of a congestive, venous character. He assumes four grades of bronchio-pneumonia (p. 94); these do not, however, represent the same inflammatory disease in different degrees of advancement, but different forms of one and the same condition,



the description of which cannot fail to recall atelectasis to mind. Cruse (l. c. 113) endeavors to convince him that neither hypostasis nor inflammation is present, and hints at the possibility of atelectasis; but, without pursuing the subject any further, refers the pathological changes to bronchitis. Rilliet and Barthez come nearest to the truth, in describing under pneumonia of the new-born a peculiar alteration, namely, carnification. Here the affected portion is commonly situate at the base of the lung; it presents a smooth, compact cut surface, which, on pressure, emits a thin sanguineous fluid; it is sometimes associated with hepatization, and then the lung resembles that of a foetus that has not yet breathed. The manner in which the disease spreads within the lungs is opposed to the course of pneumonia, but consistent with that of *atelectasis*. Seifert generally found both lungs similarly affected, and Valliex mentions, from researches made by Vernois at the foundling hospital of Paris, that, out 113 cases, there were 100 in which both lungs were simultaneously diseased.

“Unequivocal cases of infantile pneumonia, whether lobar or lobular, such as I have myself examined, and as Kiwisch has published (Oesterreich. Medic. Jahrb. N. F. vol. xxi., Stück 4, p. 534,) afford, on the other hand, the strongest negative grounds for establishing atelectasis as a distinct form. In the great majority of cases, Kiwisch found but one lung affected, the hepatized patches being invariably softened, and rendered cognizable from without, by a dull grayish coloring; conjointly with hepatization the other stages of pneumonia were present, including that of abscess; in every case there was pleuritic effusion more or less copious; bronchitis was seldom noticed,—endocarditis in one case; finally, percussion and auscultation always afforded the ordinary results, whilst the asphyctic and cyanotic phenomena were comparatively trivial.

“In concluding these critical remarks, I consider myself entitled to draw the following inferences: New-born infants are prone to an organic affection of the lungs, altogether distinct from pneumonia, and dependent upon imperfect inspiration after birth, by many pathologists confounded with pneumonia, and by Rilliet and Barthez designated as carnification. The greater number of cases of pulmonary disease occurring at the earliest period of infantile life, and set down as pneumonia, may be looked upon as cases of atelectasis.

This last assertion is, however, to be taken with some reserve,—inasmuch as, in vast laying-in or foundling hospitals (Kiwisch), pneumonia is apt to become epidemic with new-born infants, and, under these circumstances, to attain a numerical preponderance over *atelectasis*.”

## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE X.

LATHAM *on Diseases of the Heart.* Forming the Oct. No. of Bell's Select Medical Library.

The learned lecturer it is to be hoped, from the size of his volume, has succeeded in throwing some additional light upon this obscure and too frequently complicated class of diseases. He devotes these lectures to the use of mercurials in inflammations generally, and diseases of the heart in particular. A subject susceptible of much useful investigation. Of the *manner* in which he has handled it, and the disorders of the organ, the subject of the volume, we are not prepared to speak, having given it but a cursory examination. We shall take occasion to refer to it again.

G. N. F.

## ARTICLE XI.

*The Prescriber's Pharmacopia.* Published by S. S. & W. Wood, N. Y.

The above is the title of a small volume which has reached its third edition. It should be in the pocket of every young physician, containing, as it does, the most received prescriptions of the London and U. S. Pharmacopia's, arranged alphabetically under their appropriate heads. It will enable him promptly to select the one best adapted to any case in hand, without the necessity of a reference to an elaborate dispensatory. Moreover, time is often not afforded for such reference when the necessity for a prescription exists,—it is made from the physician's own memory of the effect of the substances entering into its composition, and he is liable to associate incongruous or incompatible articles. This unpretending little volume contains far more useful matter than many that are larger. Its assumed standard doses of many articles are much smaller than extended experience in their use warrants, when a decided effect is desired.

G. N. F.

## ARTICLE XII.

*Chemistry of the Four Seasons—Spring, Summer, Autumn, and Winter: An Essay principally concerning Natural Phenomena, admitting of interpretation by Chemical Science, and illustrating passages of Scripture.* By THOMAS GRIFFITHS,



Professor of Chemistry in the Medical College of St. Bartholomew's Hospital, &c. &c. Philadelphia: Lea & Blanchard. 1846. pp. 451. 12mo. (From the Publishers. For sale by Brautigam & Keen, Chicago.)

This little work is founded upon Lectures, delivered by the author at scientific institutions in London and Liverpool, and is an exceedingly comprehensive epitome of chemical science, as connected with natural phenomena. The author has succeeded to a remarkable degree, in the difficult task of popularizing science, and whilst his production is rendered perfectly comprehensible to the uninitiated, for whom expressly it was written, it cannot be said to be superficial. We cannot but admire the aptness of the author's experimental illustrations, and their perfect simplicity; so simple and easy of performance, indeed, are they, that they may be repeated successfully by the merest tyro in chemical manipulations. The style of the work is unusually agreeable and attractive, and to the serious it will recommend itself by the beauty and frequency of its reference to the evidences of design in the phenomena of nature. The part of the work describing the properties and modes of examining soils chemically, the influence of light, heat, electricity, &c., upon vegetation, will render the work valuable and interesting to horticulturists and husbandmen. In a word, no one can read this admirable little book without both pleasure and profit. The mechanical execution of the American edition does credit even to its well known publishers. J. V. Z. B.

## PART IV.—EDITORIALS.

## ARTICLE XIII.

## ON THE INHALATION OF ETHERIAL VAPOR FOR THE PREVENTION OF PAIN DURING SURGICAL OPERATIONS.

Every one has heard before this of the use of the “narcotic vapour,” or “Lethion,” for the prevention of pain during operations. As usual in similar cases, a number of claimants have arisen to contest the honor of the discovery. The credit seems to rest between Dr. Charles T. Jackson, a chemist of Boston, and Dr. Morton, a dentist of that city, who are named in the patent as inventors, the latter gentleman being proprietor,\* and Horace Wells, a dentist of Hartford, who went to Boston, proposed its use to Drs. Morton and Jackson among others, but not succeeding well in its first trials, gave it up for want of encouragement. Mr. Wells, however, preferred the nitrous oxide to the ether, thinking it to be less dangerous. Drs. Jackson and Morton patented the ether, thinking it more convenient probably, or perhaps finding its effects more favorable.† The facts, if correctly stated, seem fully to vindicate the claim of Mr. Wells. So much for the discoverer.

*Composition.*—In regard to the substance made use of, its composition has not been made public by the patentees, but it is used everywhere with and without their permission, and is nothing else but pure rectified sulphuric ether. This at least has every effect ascribed to the patent vapor, although various preparations, consisting of sulphuric and chloric ethers with morphine, in form of sulphate or acetate, in different proportions, are in use. Sometimes a small quantity of ethereal oil is added, but the addition of any or all these substances, seems neither to add to, or detract from, the effect of the sul ether.

*Method of using it.*—For this purpose a receiver is employed, with two orifices, as a two-necked bottle, to one of the orifices of which is attached a tube, furnished at its extremity with a mouth piece like that of a speaking trumpet, to fit the lips. In this tube is a valve, opening toward the mouth, so as

\* Boston Med. & Surg. Journal for Nov. 18, 1846, p. 316.

† Ib. of Dec. 16. p. 398.



to allow the vapor to be inhaled, and closing to prevent it from being forced again into the bottle. When expired it escapes by an orifice in the side of the tube, which closes with a valve during inspiration. The receiver should be sufficiently large to hold a pint and filled with a sponge to present a large evaporating surface. An inhaling apparatus may be procured in Chicago for one dollar. As much ether should be put in the receiver as the sponge will absorb, and the orifices may be closed with corks until it is required for use. The patient being seated, if convenient, upon an easy chair, (or a recumbent position if required will do,) the nostrils should be closed and the mouth piece applied to the lips in such a manner as to prevent the introduction of air. The patient being directed to inhale and fill the lungs freely.

*Effects on the System.*—The first contact of the vapor with the air passages is often attended by a slight cough. After a few inhalations there are frequently manifest signs of excitement, such as clenching the fist, or efforts to rise, which, if restrained, immediately cease, and the patient falls into a state of profound insensibility. The respiration is slow and slight, the pulse is frequently reduced, at first in frequency, afterwards accelerated, the pupils are sometimes dilated, at other times natural, the person has all the appearances of being in a state of profound sleep.

These effects continue only a few minutes if the inhalation is suspended as soon as they are noticed, but if continued longer, they are more permanent; and there are a few cases on record in which the insensibility continued an hour or more.

The length of time required for inducing sleep varies in different cases according to the quantity of the vapor mingled with the air, and according also to the susceptibility of the system; we have seen very perfect sleep induced in one and a half minutes, in other cases it required seven or eight minutes, but there was a possibility of the vapor being weaker in these latter trials. During the inhalation a physician should feel the pulse, notice the effect on the respiration, observe whether the face is flushed or the veins of the neck distended. If any unusual effects are observed suspend the inhalation altogether, if not, continue till the sleep is perfect then discontinue, to renew it if signs of returning sensibility should ap-

pear before the operation is finished. It often happens that the patient will move and speak, as in somnambulism, and yet be insensible to pain, although at the moment of being hurt he may give signs of suffering. A young lady cried out when a tooth was extracted, but on recovery was unconscious of having suffered at all, but said she had a dream, and thought she was dreaming. These effects we have described from our own observations, and they correspond to those noticed by other persons in this city, upon probably from one to two hundred individuals to whom it has, up to the present time, been administered. But in a report signed by "twelve regular dentists," of Boston,\* the common or frequent use of the article in dentistry is deprecated, on account of accidents which are stated to have been produced by its use. These effects were—1st, the long continuance of the state of insensibility; 2nd, the occurrence of delirium; 3d, the occurrence of nervous symptoms, as weeping, sighing, &c.; 4th, in one instance the patient "raised blood from the lungs, about a pint, and was suffering in consequence of the operation for three days after." From which this committee of regular dentists very justly conclude, "that this whole matter, be it of greater or less utility in surgical practice, should be put in the hands of those only who have testimonials from some one of our medical colleges, that they are worthy of being entrusted, as medical attendants, with the health and life of their fellow beings."

The exact nature of the effect resulting from the administration of the ether has been the subject of speculation; some supposing it to be a species of asphyxia, others that it results from temporary congestion of the brain, and others still, that it is a species of intoxication. It appears to bear no resemblance to asphyxia, the breathing being gentle and the veins of the neck being not at all turgid, showing that there is no obstacle to the circulation. Neither does it resemble congestion or depression of the brain, as is shown by the dreams, and absence of stutorous breathing, and fullness of the vessels attendant on congestion. The resemblance to intoxication is greater but not by any means perfect.

It seems to be a state of sleep or trance in which the sensibility is blunted, but the activity of certain of the mental faculties preserved.

\* *Ib.* for Jan. 6, 1847, p. 472.



*Uses.*—It has thus far been used principally for preventing pain during the operations of extracting teeth and of amputating members, although there are some cases on record in which it has been employed before and during the extirpation of tumors, &c. A surgeon of the Massachusetts Hospital used it for the purpose of producing relaxation of the muscles while reducing a dislocation of the shoulder. It has however been proposed to use it for favoring the operation of the taxis in strangulated hernia, and it would be worthy of trial in a great number of severe neuralgic and spasmodic diseases.

CASE 1.—On the 12th of January, 1847, a young man presented himself at the dispensary of Rush Medical College for amputation of the middle finger, rendered necessary by necrosis of the first phalanx, of four months standing. Being very timid, he wished something to prevent the pain, and the etherial vapor was administered to him for about five minutes, in a moderately concentrated form, when he became insensible. The finger and the head of the metacarpal bone were removed. He remained asleep a minute after the operation was finished, and on awaking and perceiving that it was done he smiled, and said, “that was pretty easy.” No ill effects followed; he remained about a week in the city and returned to his home, on Fox River.

CASE 2.—On the 24th inst., a young gentleman, also from Fox River, came to the dispensary, for the purpose of having some of the metatarsal bones removed, for a caries and necrosis of long standing. The ether was inhaled in a concentrated form, signs of excitement were at first shown, but in a minute and a half he became insensible. The disease proving more extensive than appearances indicated, it became necessary to remove the metatarsal bones of the three lesser toes, which were soft, and in fragments in the tissues. The operation was not completed until twenty-five minutes had elapsed, during which time the vapor had been inhaled five times; two or three inhalations being given as soon as signs of returning consciousness was perceived. Considerable blood was lost and partial syncope induced. On recovering he stated that he had scarcely any recollection of pain. No disagreeable consequences followed and he is doing well. The parts divided were in a state of inflammation, and few

operations are more painful or protracted. So that the test of the powers of ether was, in this instance, very perfect.

Desirous of knowing with greater certainty the effects resulting from long continuance of the operation, a large dog was made to inhale the vapor, in a concentrated form, for eight minutes. After a few inhalations he became insensible, struggled feebly from time to time, and remained in a state of relaxation for a few seconds, with his head hanging from the table, when he recovered entirely. This experiment without being altogether satisfactory, goes far to show that the respiration of the vapor, even when concentrated and used sufficiently long to produce its full effects on the animal system, is not likely to be directly followed by any effects dangerous to life; but a series of experiments upon the lower animals is a desideratum, and until they have been performed we shall be in ignorance of the effects it is liable to occasion if prolonged much beyond the period necessary for producing insensibility. We have not time at present to prosecute these researches, but may do so at some future time unless the void should soon be filled by others.

At present we are justified in the conclusion, that with the precautions above recommended, this vapor may be generally administered with safety. The exceptions to this rule are those cases where there is disease of the lungs, tendency to apoplexy, or mania, or an extreme nervous temperament. In children too it is said to produce vomiting, and it is besides, in such cases, difficult to make them respire it.

Is the discovery the subject for a patent? The Boston committee of dentists state that they have consulted high legal authority, who are of opinion that the patent is not valid. We have also consulted several legal gentlemen of high standing in Illinois who are of the same opinion; but as the question will soon be brought before the proper tribunals for adjudication, it is not necessary to discuss it at present. Another, on which there will be less difference of opinion among scientific men, is in regard to the propriety of a physician taking out a patent for any improvement in medicine. This is contrary to any correct principle of medical ethics, and whatever may be said of preventing its abuse, and the liberal intentions of the patentees in regard to granting the right to use it to surgeons, it still presents them in the same attitude as the



proprieters of patent medicines; in great and strong contrast, with those honorable and benevolent physicians who are above keeping secret what may be useful to their fellow men, and who are rejoiced to see the discoveries they may make widely adopted, and universally beneficial.

As to the ultimate decision of the world upon the value of this means of preventing pain, it is impossible to foresee what it will be. It has already found advocates and opponents whose zeal is little calculated to favor the discovery of its true value. Some pronounce it free from danger, others think it unworthy of a trial. It has seemed to us to demand the most careful and dispassionate examination of surgeons.

We have given the results of our own observations, and add elsewhere such facts and opinions, from other sources, as will give our readers some idea of the great interest which it excites throughout the country.

D. B.

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#### ARTICLE XIV.

#### COLLEGE DISPENSARY.

This noble charity, established by the Faculty of Rush Medical College, has been adopted as a county institution by the Commissioners of Cook county, and well may they be proud of an institution which so liberally scatters its blessings amongst the sick poor. There have been over two hundred prescriptions made for more than one hundred patients since the opening of the session of the College, in November.

In addition to the extensive relief afforded the poor sufferers, there has another most important end been attained by it. The prescriptions were made before the medical class—thus teaching the young men how to practice, and affording them an opportunity of witnessing the effects of treatment upon a large variety of diseases. After entering upon the duties of the profession, the students who have witnessed the treatment of these cases, meeting with the diseases, will recognize them as old acquaintances—enemies—with the weapons of warfare against whom they are already familiar, both as to their nature and application—and they go forward in practice with confidence and success.

The following diseases, as shown by the record of the Dispensary, many of which will form interesting reports for the Journal when drawn up by the clerk, were presented, and served as illustrations for clinical lectures on practice to the class :

Hypertrophy of the heart; dyspepsia; intermittent fever, with almost all its complications; enlargement of the spleen; conjunctivitis, acute and chronic; ascitis; anasarca; chronic pleuritis; neuralgia; dysmenorrhœa; gastritis; peritonitis, chronic; hysteria; gastro enteric irritation; scabies; jaundice; bronchitis; erysipelas, influenza, &c.

And the following were presented illustrating the surgical clinic:—Enlarged tonsils; old laxation of elbow joint; indolent ulcers; abscesses; nasal polypi; caries of bones and polypus of the ear; strabismus; ulceration of stump of amputated leg; necrosis; hernia; fractures, of metacarpal bones and of neck of the femur; incised wound of knee; encysted tumor; morbus coxarius, with many others of less importance.

These required the following operations, which were successfully performed by Prof. Brainard before the class:—Amputations; removal of three carious metatarsal bones, done while the patient was under the influence of the sulphuric ether from inhaling its vapor, patient suffering but little pain; operation for strabismus; removal of tonsils; reduction of old laxation of elbow joint; removal of nasal polypi, of polypi from the ear; application of truss; extirpating tumors; operation for fistula in ano, &c. &c.

Ample trial was made of many of the new remedies and modes of treatment recommended by the profession. And it is a pleasing consideration, that while most of the patients have been discharged cured, not one has died. G.N.F.

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#### ARTICLE XV.

#### MEDICAL BOOKS.

We are highly gratified to see our book merchants bringing on large and well selected assortments of medical books. Almost any medical work that the physician or student may require can be obtained in Chicago on as good terms as any where in the west. This is a great convenience to the medical public, and we hope that our friends may meet with an ample reward for their enterprise from rapid sales.



While on this subject we would drop a hint to our brethren through the country, that many of them have entirely too meagre a show of medical library, and occasionally we meet with one with scarcely a single medical book. This is all wrong. It is impossible for the practitioner, let him be ever so gifted, to maintain his ground, so far as science is concerned, unless he is a reader of medical books; to say nothing in reference to keeping pace with the great and important improvements that are yearly being made in the several departments of the science.

A friend of ours, a few years ago, said he had adopted as a rule to set apart annually of the proceeds of his practice fifty dollars, to be invested in books. The principle is a good one; and if each practitioner in the country would annually set apart the sum that he should determine before hand to be consistent with his wants and his ability, even if small, and invest it in the most approved works on the different branches of the science, and read them, it would in a few years ornament his office with a well selected library, and, what is more important, his head with a knowledge of the resources of the profession.

The time is coming when the profession in the west will assume a higher and a more dignified stand. We think the time not far distant. The signs look better; and amongst those that are decidedly encouraging are the increased number of students and physicians who attend upon the teachings of the medical schools, and the increase in the sale of medical books. E.

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ARTICLE XVI.

"LANCETTE CANADIENNE,"

We have received the first number of the "Lancette Canadienne," a native journal, published at Montreal, L. C., in the French language, and conducted by J. L. LEPROHON, M.D. It is issued every two weeks, at \$4 per annum, in a newspaper form.

The editor, in a modest and well written prospectus, sets forth the wants of a large number of physicians of Lower Canada who are of French origin, and have but an imperfect

knowledge of the English language. There are also some in the United States, who for various reasons would, we are sure, be pleased to see a medical publication in the French language, and gain an acquaintance with the practice of the numerous skillful physicians of Canada. To such the "Lancette" will in every respect commend itself, its object and spirit being excellent, and the selections judicious and valuable. We wish it success.

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#### ARTICLE XVII.

##### NATIONAL MEDICAL CONVENTION.

We are pleased to see this proposition for the improvement of the profession meeting with more general approbation. Most of our cotemporaries have spoken in its favor, and many of the most respectable societies and colleges of the United States have appointed delegates to the meeting, to be held at Philadelphia on the first Wednesday in May next.

That some of the plans for reform in medical education proposed for the adoption of this Convention are utopian in the extreme, must be apparent; yet we see no reason why great good may not result from the deliberations of such a body of physicians, made up as it should be of the representatives of the great body of the profession in the United States; and as the influence of the Convention must to a great extent depend upon the fullness of the representation, we hope that all bodies entitled by the rules adopted will be represented on the occasion.

E.

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#### ARTICLE XVIII.

TO SUBSCRIBERS.—The low price of the Journal makes it necessary that we insist upon prompt payments. We hope our subscribers will understand this without further comment and at once forward the amount of the subscription. Those who have not paid for the present volume will please forward for it and the ensuing year, as our terms are *payment in advance*. Payment may be made to either of the editors or to our authorized agents, and forwarded post-paid by mail at our risk.



## PART V.—ABSTRACT.

## ARTICLE XIX.

## THE JOURNAL.

With this number we close the first volume of our enlarged Journal, and the third since its commencement, and having labored hard to render it worthy of the patronage of the profession of the great North-West, we turn our attention to the past, to see how far we have been able to accomplish the designs of our work—which are, to keep our readers advised of what is transpiring of importance in the profession, both at home and in foreign countries; and to afford to the physicians of the North-West, a medium of communication by which the valuable in their observations and reflections may be given to the public, while at the same time, it is made a matter of permanent record.

The Journal is now permanently established, and to those friends who have assisted it by their patronage, and by contributions to its pages, we tender our most hearty thanks; while we solicit from them, for the future, a continuance of their favors,—and especially do we ask that our list, both of contributors and subscribers, may be extended.

That we may at one glance see what has been done the past year, in the way of original communications, we will make a brief abstract of them by way of a recapitulation.

No I. ART. 1.—*Epidemic Erysipelas*. By Prof. FITCH.—This is a disease that has prevailed to a great extent in many locations in the west within the last few years, and perhaps in none more extensively than in the country around it, and in the town of Logansport, Ind., the residence of Dr. Fitch. The article shows that he was not an inattentive observer of the disease and the effects of treatment. He took notes of 213 cases, in 182 of which the attack was in the fauces, tonsils, sterno mastoid muscle, or cervical glands, showing a uniformity truly remarkable, and from which peculiarity in the disease, no doubt, it was for a time known by the appellation of “black tongue,” although this symptom was actually present in two cases *only*.

The conclusions of Dr. Fitch are that the disease is decidedly contagious, yet often occurring in consequence of epidemic influences.

The principal reliance in treatment is placed in bleeding, which was very successful when resorted to at an early stage of the disease. Next in importance, in the commencement of the disease, are emetics. The use of cathartics was found important in many cases, of which calomel and castor oil were chiefly relied upon.

A gargle of dilute tinc. of iodine was found to be most efficient as an application to the fauces, and the local application most approved for arresting the spread of the inflammation was blistering in advance of it. For reducing the swelling and violence of the local disease, a lotion of dilute tinc. iodine. Where this failed, free incisions of the skin, or punctures with the lancet, were made to allow the escape of the serum beneath it, with decided advantage.

When the disease attacks pregnant or laying-in women it is almost always fatal, yet Dr. F. cured quite a number of such. He regards it as identical with epidemic puerperal peritonitis.

ART. 2.—*Wahoo*.—(*Euonymus Atropurpureus*.) By E. ANDREW, M.D., now of Peoria.—The bark of the root is the part used. This remedy is said to have been used as a cure for intermittent fever by the aboriginies of this country. However, the strongest recommendation in favor of this, to the profession, new remedy, is in its effects as a hydragogue cathartic, which are produced at the same time that a decidedly tonic influence is exerted upon the system. This renders it appropriate in dropsies attended with general debility; while the peculiar property of not losing its effects by continued use, would seem to point it out, as extremely appropriate in obstinate cases.

As this is a native western medicine, the shrub growing in almost all parts of the country, it becomes the duty of the profession to more extensively investigate its merits, and if it shall prove to be as valuable as Dr. A. regards it, it should be in general use.

Its virtues, in cases of anasarca and ascitis, following long continued intermittent fever, have been pretty thoroughly tested during the last few months in the dispensary of the Rush Medical College, and with the most favorable results. We shall be glad to hear how it succeeds in other hands.



The article is well written, and is on a very interesting subject.

NO. II. ART. 1.—*Delirium Tremens*. By E. R. LONG, M.D., U. S. Army.—This gives a concise view of the most prevalent opinions in regard to the pathology of the disease, and comes to the conclusion, that as a manifestation of “peculiar morbid excitement of the nervous system” is all the constant condition of the disease, we must refer it to the nervous system, and not to gastritis, meningitis, or any other local affection that is sometimes present and sometimes absent.

But these complications, or attendants, must be respected in treatment—and as gastritis is by far the most common, it will often be found necessary to be exceedingly careful of what is introduced into the stomach.

But independent of complications the anodyne treatment is clearly indicated.

ART. 2.—*Amputations in Scrofulous Diseases*. By Prof. BRAINARD.—This is an interesting and instructive article, showing by several cases reported from the author's own experience, and from Brodie, Druit, and Tamplin, that in many cases of scrofulous disease, affecting the joints, the limb may be saved by proper and patient application of the appropriate treatment; and that, even after exterior suppuration, caries of the bone, and hectic fever have supervened. Nor is this all—it is shown that in these cases amputation is extremely hazardous, as the scrofulous affection is liable to locate upon the lungs, mesentery, or other vital organs, and thus result in the loss of life.

It should always be remembered that it is a greater triumph in surgery, to save a useful member than to display skill in the performance of an operation.

ART. 3.—*Foreign Bodies in the Organs and Tissues*. By Prof. HERRICK.—This article shows that foreign substances lodged in the organs and tissues of the body may give rise to symptoms, which for want of a correct history of the case, may perplex the practitioner. Cases are reported illustrating this fact, in all of which the removal of the substance resulted in a speedy recovery.

ART. 4.—*Case of the Bite of a Mad Dog and its Treatment*. By Dr. STAHL, M.D.—This is an interesting case, from the positive and satisfactory evidence of the rabid condition of the

dog, and the wound being on the hand, and not through his clothing; showing a strong probability of the patient being infected but for the treatment. This consisted in the use of the actual cautery to the wounds made by the teeth of the dog, kept running by ungent. cantharid, and ung. Hyd. Precip. rub. cum sulph. cupri., and the administration of  $\frac{1}{2}$  grain doses of ext. belladonna, repeated so as to induce the specific effects of the medicine. The patient showed no symptoms of hydrophobia.

NO. III. ART. 1.—*Sulph. Quinine in the congestive modifications of Scarlet Fever and Measles.* By D. STAHL, M.D., of Quincy, Ill.—There is no doubt of the efficacy of quinine in the cure of the fevers so prevalent in the West, known by the appellation of “congestive.” The author regards this type, which often modifies pneumonia, pleuritis, hepatitis, the exanthemata, and most other diseases of the country, as an adynamic condition of the system dependent upon a want of energy in the nerves, which quinine restores. This condition is very common in scarletina and rubeola, in which the author obtained the happiest results from the free administration of quinine in several cases, the reports of which are interesting to the practitioner.

ART. 2.—*The remote and proximate cause of Bilious Fevers of the South and West, considered in the light of Liebig's Theory of Animal Heat.* By S. G. ARMOR, M.D., of Rockford.—The author in this article makes many exceedingly interesting suggestions in reference to the influence of diet of a highly carbonized character over the system, and suggests that the abundance of carbon in the blood may be the cause of our fevers, and that the curative action of quinine may be, in effecting a chemical change, in the relative proportion of the constituents of the circulating mass.

It is an interesting inquiry, and if it would lead to a determination of the extent to which certain classes of food are appropriate, to be regulated by the thermometer, we might, but for the sudden and extreme changes in the temperature of the weather interfering, eat food with a certainty of its fitness.

ART. 3.—*Amputation of the Superior Maxillary, Malar and Palate Bones for disease of the Antrum. Recovery.* By Prof. BRAINARD.—This is an account of one of the most important operations that occur in the practice of the surgeon. The



disease for which it was performed was a rapidly growing tumor of a malignant character. It is interesting as showing the extent to which the bones of the face may be removed with safety to life.

ART. 4.—*Case of Mental Excitement allayed by Music.* By Prof. HERRICK.—This was undoubtedly a case of incipient insanity, produced by over excitement of the brain while the system was too much prostrated to endure it, and shows the power of what may be termed *moral treatment*. The music succeeded in allaying the excitement, no doubt, by fixing the attention; and by its peculiarly agreeable influence induced sleep after the failure of the most powerful narcotics.

No. IV. ART. 1.—*Observations on Insanity and its Treatment in private practice.* By Prof. EVANS.—This is a long article and contains some interesting statistics in reference to the cause of the disease—some appropriate reflections in reference to its nature—and gives a moral and physical treatment to be pursued by practitioners in the country, founded upon the improvements that have been recently made in the management of the insane.

ART. 2.—*Cuse of Tubucular Deposite in the Cerebellum. Autopsical Examination.* By P. A. ALLAIRE, M.D., of Aurora.—This is a concise and well written account of an interesting case. It shows the importance of autopsical examinations in determining the true nature of disease, and affords additional evidence that M. Gendrin and M. Lévellé are mistaken in asserting that “all cerebral tubercles are encysted.”

ART. 3.—*Operation on the closure of the external orifice of the Vaginal Canal.* By A. E. AMES, M.D., of Roscoe.—Atresia of the vagina is of rare occurrence from membranous expansion, and where it does occur it is generally referable to an unnatural development in connexion with, if not of the hymen itself. This case was appropriately and successfully treated at an early age—certainly a much better course than to have left it to obstruct the menstrual flow in after life.

No. V. ART. 1.—*Blindness caused by the use of Sulph. Quinine.* By Prof. McLEAN.—This article comes in most appropriately at this time, when the members of the profession seem to vie in the freedom with which they use quinine and the magnitude of its doses. Several cases from the author's own experience are reported, showing the effect indicated in the

title of the article. As this would be an appropriate time in the experience of practitioners to collect the deleterious effects of this medicine, we hope our friends will not neglect it. Its influence appears to be principally over the nervous system. This is manifested, we think, clearly by its influence in affecting the organs of sense and the intellect. We saw a case of acute mania which lasted about thirty-six hours, in November last, in company with Dr. Brinckerhoff, of Chicago, which had evidently been produced by the patient's taking a 20 gr. dose of sulph. quinine, some hours before the attack, to cure an intermittent fever. A free dose of morphine procured sleep, after which the patient awoke and continued in his right mind.

ART. 2.—*A case of Strangulated Hernia in a man aged 82 years.* By Dr. J. HARVEY, of Ohio.—Hernia, at the advanced age of 82 years successfully operated upon, from the nature of things must be a rare occurrence. The suggestion of applying ice previous to an operation, to prevent hemorrhage, is a good one, and may be applicable in other cases than the one here tried.

ART. 3.—*Case of Placenta Previa.* By W. BUTTERFIELD, of Ottawa.—This is a case showing that the presentation of the placenta does not always occasion violent hemorrhage, even when left to the unaided powers of nature. How far the death of the child, and consequent suspension of the foetal circulation may have been the cause of absence of hemorrhage, is difficult to say. Generally, in such cases, the flooding will be jointly from the matrix and the placenta.

ART. 4.—*Case of Encephaloid Tumor.* By JOHN COOK, M. D., of Vt.—This is but another of the many melancholy proofs of the malignancy of this disease. The removal of a tumor of this class appears to afford but temporary exemption, as it soon manifests itself in the same, or some other, and generally a more vital part of the system. No doubt remains of the disease being constitutional and the tumor a local manifestation of it.

ART. 5.—*Case of Hydrocephalus Internus successfully treated by Iodide of Potassium.* By L. BRACKETT, M.D., of Ind.—This case is well reported, the symptoms being given, which adds greatly to the interest of the case, as where they are not the profession must rely upon the knowledge and judgment of the reporter for the diagnosis.



The success of the medicine in this case highly recommends it to the notice of the profession.

NO. VI. ART. 1.—*On the Treatment of Fevers and Inflammations without Mercury.* By A. G. HENRY, M.D., of Pekin.—We have long concurred in the sentiment of the author that most cases of fevers might be successfully treated without the use of mercury. We would however observe the admission that in many cases benefit may be obtained from it—where the liver is torpid it is too well demonstrated that mercury or its preparations are indicated for them to be abandoned readily.

The suggestion of using as a substitute for mercury from four to six grain doses of opium, is as far as we know original with Dr. H., and if the practice is as successful in other hands as it has been in his, will prove of great value.

We hope we will be favored with more frequent communications from Dr. H. in future.

ART. 2.—*A Case of Idiopathic Tetanus.* By W. WADSWORTH, M.D., of Wisconsin.—Tetanus both idiopathic and symptomatic is fortunately a comparatively rare disease.

ART. 3.—*On the Use of Quinine.* By A. W. BENTON, of Sterling.—The author thinks that quinine acts by neutralizing “the sedative poison of malaria” in the cure of fever.

ART. 4.—*Case of Abscess of Female Breast from which a worm was discharged.* Reported by Prof. BRAINARD.—This case is unique, and it would be interesting to learn from Dr. Mead the result of the second abscess.

ART. 5.—*Reduction of Dislocation of the elbow of five months standing.* By Prof. BRAINARD.—This is an interesting case, and we shall hope at some future period to be able to give the final result of the treatment.

ART. 6.—*On the use of Nitric Acid Issues in chronic diseases.* By P. A. ALLAIRE, M.D.—The experience of the author and the laws of chemical reaction point out nitric acid as a most excellent agent for the establishment of issues. The speed of its action and the profuse suppuration it induces, must highly recommend it. The author is much in favor of large issues.

ART. 6.—*Letter from Dr. Herrick.*—This gives an interesting account of the manners and customs of the Mexicans, and of the diseases and their treatment in our army.

From this brief recapitulation it is seen that our friends have most liberally contributed to our pages; and in reference to this we would observe, that contributions to the pages of a medical journal form the surest evidence that a physician is striving to keep pace with the science, and the plainest road to professional distinction. Few men will thoroughly investigate a subject, unless they are about to commit the result of their investigation to writing. The habit of investigating and writing may stand to each other in the relation of cause and effect, and may operate alternately. When one writes he should investigate thoroughly; and when he investigates thoroughly he is almost certain to write.

*Reviews.*—Our Review Department has been filled with reviews of the most important of the new publications as they have been issued from the press. We feel confident that our labors in this respect have been satisfactory and instructive to our readers.

*Bibliography.*—We have endeavored to notice all works, pamphlets, books, &c., which have been sent to us, and if we have made any omission in this respect, we ask that it may be attributed to oversight and not to intention.

Of the editorial matter we will not speak—but if the reader has any curiosity to refresh his memory in reference to it, he may turn back to that head in each number.

*Abstracts.*—This head will be found to be very interesting in several of our numbers. The researches in reference to the physiology and pathology of the blood, in numbers one and two, will be found to be exceedingly interesting.

*Selections.*—In making selections we have been governed to a great extent, by the consideration of usefulness in practice, hence our articles will many of them be found to be practical; yet we endeavor to glean from our cotemporaries all that our space will allow that is new, practical, curious, and otherwise interesting. *E.*



## PART VI.—SELECTIONS.

1. *Abstract of Researches on Magnetism and on certain allied Subjects; including a supposed new imponderable.* By Baron VON REICHENBACH. Translated and abridged from the German, by Wm. Gregory, M. D., F. R. S., Prof. of Chemistry, &c.

As our limits will not allow us to give the whole of an interesting abstract of this work, published in the Jan., (1847) number of the American Journal of Medical Sciences, we give the following extracts from it, which will show the nature of the pretensions set up, which all will see to be closely allied to those of Mesmerism :

Baron Von Reichenbach thinks he has demonstrated that magnets act on the human body, especially in certain conditions ; and further, that he has demonstrated the existence, *in magnets*, of two forces, one which attracts iron and affects the needle, and one which acts on the nervous system, and which he has found unmixed *in crystals*. This new power, which he is disposed to view as the true agent in animal magnetism, he says, “is transferable from one body to another and is conductible through matter. A body may be, for a time, charged with it, and this is the true explanation of the fact, now demonstrated by the author, that a glass of water, as stated by Mesmer and his followers, may be magnetised by contact with a magnet, although that term is improper.

“But perhaps the most striking characters of this new power are, that it assumes, like electricity and magnetism, a polar arrangement in bodies, and that bodies charged with it are luminous, especially at the poles. The light, it is true, is only visible to certain sensitive individuals ; but not only are such persons of tolerably frequent occurrence, but the author has gone far towards demonstrating, that, although invisible to ordinary eyes, actual light, nevertheless, does emanate from the poles of powerful magnets.

“The author finds the new power in many unsuspected quarters, in the sun’s rays, the moon’s rays, heat, electricity, friction, and, above all, chemical action ; and the numerous and beautiful applications which at once suggest themselves, give a tenfold interest to this part of his researches. The human frame, especially the hand, whether in virtue of the incessant chemical changes going on in the body, or independently, is a rich source of the new power.”

The new influence which the author thinks he has detected in magnets, in crystals, in light, heat, electricity, and chemi-

cal action, is due, he confesses, to the existence of his "new imponderable."

"Magnets of 10 lb. supporting power," says the author, "when drawn along the body, downwards, without contact, produce certain sensations in a certain proportion of human beings. Occasionally in 20, 3 or 4 sensitive individuals are found; and in one case, out of 22 females, examined by the author, 18 were found sensitive. The sensation is rather unpleasant than agreeable, and is like an *aura*, in some cases warm, in others cool; or it may be a pricking, or a sensation of the creeping of insects on the skin; sometimes headache comes rapidly on. These effects occur when the patient does not see the magnet, nor know what is doing; they occur both in males and females, although more frequently in females; they are sometimes seen in strong healthy people, but oftener in those whose health, though good, is not so vigorous, and in what are called nervous persons. Children are often found to be sensitive. Persons affected with spasmodic diseases, those who suffer from epilepsy, catalepsy, chorea, paralysis, and hysteria, are particularly sensitive. Lunatics and somnambulists are uniformly sensitive."

Healthy sensitive persons observe nothing further than the sensations above noticed, and experience no inconvenience from the approach of magnets. But the diseased sensitive subjects experience different sensations, often disagreeable, and occasionally giving rise to fainting, to attacks of catalepsy, or to very violent spasms. In such cases there occurs an extraordinary acuteness of the senses; smell and taste, for example, become astonishingly delicate and acute. The patients hear and understand what is spoken three or four rooms off, and their vision is often so irritable, that, while, on the one hand, they cannot endure the sun's light or that of a fire, on the other, they are able, in very dark rooms, to distinguish not only the outlines but also the colour of objects, where healthy people cannot distinguish anything at all.

The author's first series of recorded experiments refer to the appearance of light, visible only to the sensitive, at the poles and sides of powerful magnets.

"Mlle. N. being in catalepsy, insensible and motionless, but free from spasms, a horse-shoe magnet of 20 lb power was brought near to her head, when the hand attached itself so to the magnet, that whichever way the magnet was moved, the hand followed as if it had been a bit of iron adhering to it. She remained insensible, but the attraction was so powerful that when the magnet was removed in the direction of the feet, further than the arm could reach, she, still insensible, raised herself in the bed, and with the hands followed the magnet as far as she possibly could, so that it looked as if she had been seized by the hand, and that member dragged to-



wards the feet. This was daily seen by the author between six and eight, P. M., when her attacks came on, in the presence of eight or ten persons, medical and scientific men. At other periods of the day when she was quite conscious, the phenomena were the same. She described the sensation as an irresistible attraction, which she felt compelled against her will to obey. The sensation was agreeable, accompanied with a gentle cooling aura streaming or flowing down from the magnet to the hand, which felt as if tied and drawn with a thousand fine threads to the magnet. She was not acquainted with any similar sensation in ordinary life." Similar results were obtained in other cases; in one case (the one quoted) a certain amount of attraction was also observed in the foot, but far weaker. It was found that the hand of the cataleptic patient had no attraction for iron filings, did not in the least affect the needle, and excited no appreciable attraction on a magnet, which was counterpoised on the beam of a balance, and brought near to the hand, although it required some force to prevent the hand from rising to the magnet. That is to say, while the magnet attracted the hand, as it were vitally, the hand did not attract the magnet statically."

In connexion with the foregoing is an article that more clearly defines all this class of phenomena than anything that has yet made its appearance, from which we take the following :

*The Power of the Mind over the Body; an experimental Inquiry into the Nature and Cause of the Phenomena attributed by Baron Reichenbach and others to a "New Imponderable."* By JAMES BRAID, M.R.C.S.E. (Edin. Med. & Surg. Jour. Oct. 1846.)

The preceding article contains an account of the wonderful, supposed, new discoveries of Baron Reichenbach, and in the present will be found the results obtained by Mr. Braid, on repeating the experiments of the former. This paper cannot fail to be read with deep interest. So curious and important does it seem to us, that we have not hesitated to give it nearly *in extenso*, and to appropriate to it far more space than is accorded to articles in this department of the Journal. It is one of the most valuable contributions to mental physiology and pathology that has for a long time been presented.

"On the first announcement," says Dr. Braid, "of Dr. Gregory's abstract of Baron Reichenbach's 'Researches on Magnetism,' I lost no time in procuring a copy, which I perused with intense interest. I had not proceeded far, however, when my experience with hypnotic patients enabled me to perceive a source of fallacy, of which the Baron must either have been ignorant, or which he had entirely overlooked.

From whatever cause this oversight had arisen, I felt confident that however carefully and perseveringly he had prosecuted his experiments, and however well calculated they had been for determining mere physical facts, still no reliance could be placed upon the accuracy of conclusions drawn from premises assumed as true, where especial care had not been taken to guard against the source of fallacy to which I refer, viz: the important influence of the mental part of the process, which is in active operation with patients during such experiments. I therefore resolved to repeat his experiments, paying the strictest attention to this point; and, as I had anticipated, the results were quite opposed to the conclusions of Baron Reichenbach. It is with considerable diffidence that I ventured to publish an opinion opposed to such high authority; but I shall briefly state the grounds of my own belief, and leave it to others to repeat the experiments, and determine which opinion is nearer the truth. The observations which I have to submit may, moreover, prove suggestive to others, and enable them not only to avoid sources of fallacy with which I am familiar, but may also lead to the detection of many which may have escaped my own observation.

“The great aim of Baron Reichenbach’s researches in this department of science has been to establish the existence of a new imponderable, and to determine its qualities and powers in reference to matter and other forces, vital and inanimate. It unfortunately happens, however, that the only test of this alleged new force (with one solitary exception, and that as I thought by no means a satisfactory one), is the human nerve; and not only so, but it is further admitted that its existence can only be demonstrated by certain impressions imparted to, or experienced by, a comparatively small number of highly sensitive and nervous subjects. But it is an undoubted fact that with many individuals, and especially of the highly nervous, and imaginative, and abstractive classes, a strong direction of consciousness to any part of the body, especially if attended with the expectation or belief of something being about to happen, is quite sufficient to change the physical action of the part, and to produce such impressions from this cause alone, as Baron Reichenbach attributes to his new force. Thus every variety of feeling may be excited from an internal or mental cause—such as heat or cold, pricking, creeping, tingling, spasmodic twitching of muscles, catalepsy, a feeling of attraction or repulsion, sights of every form or hue, odours, tastes, and sounds, in endless variety, and so on, according as accident or intention may have suggested. Moreover, the oftener such impressions have been excited, the more readily may they be reproduced, under similar circumstances, through the laws of association and habit. Such being the fact, it must consequently be obvious to every intelligent and unpre-



judiced person, that no implicit reliance can be placed on the human nerve, as a test of this new power in producing effects from external impressions or influences, when precisely the same phenomena may arise from an internal or mental influence, when no external agency whatever is in operation.

“In order to guard against this source of fallacy, therefore, I considered it would be the best mode to throw patients into the nervous sleep, (the term adopted by me in preference to mesmeric sleep, for reasons to be explained presently,) and then operate on such of them as I knew had no use of their eyes during the sleep (for some have), and to take accurate notice of the results when a magnet capable of lifting fourteen pounds was drawn over the hand and other parts of the body without contact, after the manner described, as performed by Baron Reichenbach in his experiments.

“I experimented accordingly, and the results were, that in no instance was the slightest effect manifested, unless when the magnet was brought so near as to enable the patient to feel the abstraction of heat (producing a sensation of cold), when a feeling of discomfort was manifested, with a disposition to move the hand, or head, or face, as the case might be, from the offending cause. This indication was precisely the same when the armature was attached, as when the magnet was open: and in both cases, if I suffered the magnet to touch the patient, instantly the part was hurriedly withdrawn, as I have always seen manifested during the primary stage of hypnotism, when the patients were touched with any cold object. Now, inasmuch as patients in this condition, generally, if not always, manifest their perceptions of external impressions by the most natural movements, unless the natural law has been subverted by some preconceived notion or suggested idea to the contrary: and as I have operated with similar results upon a considerable number of patients, we have thus satisfactory proof that there was no real attractive power, of a magnetic or other nature, tending to draw the patient, or any of his members, so as to cause an adhesion between his body and the magnet, or between the latter and iron, as Baron Reichenbach had alledged. I conclude, therefore, that the phenomena of the apparent attraction manifested in his cases were due entirely to a mental influence; and I shall presently prove that this is quite adequate to the production of such effects.

“A lady, thirty years of age, was requested to hold out her right hand over the arm of an easy chair, whilst she turned her head to the left, to prevent her from seeing what I was doing, and to watch and describe to me the feelings she experienced in the hand during my process, which was to be performed without contact. She very soon felt a pricking in the point of the third finger, which increased in intensity and at

length extended up the arm. I then asked her how her thumb felt, and presently the same feeling was transferred to it; and when asked to attend to the middle of the forearm, in like manner the feeling was presently perceived there. All the time I had been doing nothing; the whole was the result of her own mind acting on her hand and arm. I now took the large magnet, and allowed her to watch me drawing it slowly over the hand, when the feeling was much as before, only that she felt the cold from the steel when brought very near to the skin. It was precisely the same when closed as when opened, and the same sensations occurred when the north pole alone approximated, or the south alone, or both together. She experienced no sense of attraction between her hand and the magnet from either pole, nor from both combined. I now requested the lady to keep a steady gaze upon the poles of the large horse-shoe magnet, and tell me if she saw anything, (the room was not darkened nor was the light strong,) but nothing was visible. I then told her to look steadily, and she would see flame or fire come out of the poles. In a little after this announcement, she started, and said, 'Now I see it, it is red; how strange my eyes feel;' and instantly she passed into the hypnotic state. This lady had been repeatedly hypnotized. I now took the opportunity of testing her as to the alleged power of the magnet to attract her hand when asleep, but, as in other cases, the results were quite contrary—the cold of the magnet (and of either pole alike) caused her to withdraw her hand the moment it touched her. I now requested her to tell me what she saw (she being still in the sleep.) She said she still saw the red light. I desired her to put her finger to the place where she saw it. This she declined to do, being afraid that it would burn her. I thereupon assured her that it would not burn her, upon which she pointed to the same place where the magnet was held before she went into the sleep, instead of to where it was now held, which was near to her face, but towards the opposite side of the chair. This lady does not see from under her partially closed eyelids when hypnotized, as some patients do; and the evidence her testimony affords in support of my opinion upon this subject, is very conclusive, as she is a lady of very superior mental attainments, and one whose testimony merits unlimited confidence.

"I beg to call particular attention to the fact, that in this latter case, as with the fifth of the vigilant cases narrated, the first experiments were tried without any magnet or other object being pointed at or drawn over them, and still the mental influence was quite sufficient to change the physical action and produce decided and characteristic effects, where there could be no influence from without, of the nature alleged by Baron Reichenbach and the mesmerists.



“I had long been familiar with the fact, that during a certain stage of hypnotism, patients may be made to give various manifestations, or declarations of their feelings and emotions, according to previously existing ideas, or suggestions imparted to them during the sleep; and, moreover, that such associations once formed, were liable to recur ever after, under a similar combination of circumstances. As occurs in ordinary dreaming, they seem generally at once to adopt the idea as a reality, without taking the trouble of reasoning on the subject as to the probability of such ideas being only imaginary; and their extreme mobility at a certain stage of the hypnotic state, renders them prompt with their corresponding physical response. In proof of this, and how readily those attentive to these facts may misapprehend what they see realized in such cases, I beg to submit the following interesting illustration. When in London lately, I had the pleasure of calling upon an eminent and excellent physician, who is in the habit of using mesmerism in his practice, in suitable cases, just as he uses any other remedy. He spoke of the extraordinary effects which he had experienced from the use of magnets applied during the mesmeric state, and kindly offered to illustrate the fact on a patient who had been asleep all the time I was in the room, and in that stage, during which I felt assured she could overhear every word of our conversation. He told me that when he put the magnet into her hands, it would produce catalepsy of the hands and arms, and such was the result. He wafted the hands and the catalepsy ceased. He said that a mere touch of the magnet on a limb would stiffen it, and such he proved to be the fact.

“I now told him, that I had got a little instrument in my pocket, which, although far less than his, I felt assured would prove quite as powerful, and I offered to prove this by operating on the same patient, whom I had never seen before, and who was in the mesmeric state when I entered the room. My instrument was about three inches long, the thickness of a quill, with a ring attached to the end of it. I told him that when put into her hands, he would find it catalepsize both hands and arms as his had done, and such was the result. Having reduced this by wafting, I took my instrument from her, and again returned it, in another position, and told him it would now have the very reverse effect—that she would be able to hold it, and that although I closed her hands on it, they would open, and that it would drop out of them, and such was the case,—to the great surprise of my worthy friend, who now desired to be informed what I had done to the instrument to invest it with this new and opposite power. This I declined doing for the present; but I promised to do so, when he had seen some further proofs of its remarkable powers. I now told him that a touch with it on either extremity

would cause the extremity to rise and become cataleptic, and such was the result; that a second touch on the same point would reduce the rigidity, and cause it to fall, and such again was proved to be the fact. After a variety of other experiments, every one of which proved precisely as I had predicted, she was aroused. I now applied the ring of my instrument on the third finger of the right hand, from which it was suspended, and told the doctor, that when it was so suspended, it would send her to sleep. To this he replied, "it never will," but I again told him I felt confident that it would send her to sleep. We then were silent, and very speedily she was once more asleep. Having aroused her, I put the instrument on the second finger of her left hand, and told the doctor that it would be found she would not go to sleep, when it was placed there. He said he thought she would, and he sat steadily gazing at her, but I said firmly and confidently that she would not. After a considerable time the doctor asked her if she did not feel sleepy, to which she replied "not at all;" could you rise and walk? when she told him she could. I then requested her to look at the point of the fore-finger of the right hand, which I told the doctor would send her to sleep, and such was the result; and, after being aroused, I desired her to keep a steady gaze at the nail of the thumb of the left hand, which would send her to sleep in like manner, and such proved to be the fact.

"Having repaired to another room, I explained to the doctor the real nature and powers of my little and apparently magical instrument,—that it was nothing more than my port-manteau-key and ring, and that what had imparted to it such apparently varied powers was merely the predictions which the patient had overheard me make to him, acting upon her in the peculiar state of the nervous sleep, as irresistible impulses to be affected, according to the results she had heard me predict."

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2. *Note on the Vitellary nature of the Corpus Luteum.* By C. D. MEIGS, M.D., Professor of Midwifery in Jefferson Medical College, &c. (In a letter to the editor.)

DEAR SIR:—I made, at the last meeting of the American Philosophical Society, a statement with regard to the Corpus Luteum, to the following effect:

Upon turning the screw of the compressor, while a bit of fresh corpus luteum lies between the plates, I can, with a magnifying power of 500, perceive the escape from the crushed mass of vast numbers of corpuscles resembling, in every particular, the granules and corpuscles of the yolk of an egg.

I have made the observation a great many times—and I



have placed upon the platine, portions both of fresh yelk and fresh corpus luteum of the cow. Upon the most rigorous comparison of the microscopic appearances in each case, I cannot discover any difference, except that from the crushed bit of corpus luteum there escapes with the yelk grains, a certain quantity of detached cellular, or epithelial structure and blood discs.

When a portion of bright yelk, or a portion of equally bright corpus luteum is under the objective, the whole of the transmitted light, before the focus is obtained, is yellow, and alike in both cases, while the transmitted light is also yellow in passing through a single, or three or four separate corpuscles of either substance.

The micrographers have not noticed this appearance. Dr. Bischoff, in his *Entwicklungsgeschichte*, takes notice of numerous punctiform bodies, but does not hint at an idea of their being yelk grains.

The discovery of the vitellary nature of the corpus luteum, if I have really made the discovery, ought to prove interesting to the physiologist and the medicologist. I beg you, therefore, to do me the favor to mention the circumstance in the forthcoming number of your valuable Journal, in order that the microscopic observers may test its truth or error.—*Amer. Jour. of the Med. Sciences.*

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3. *Schools as they are and as they should be.* By H. M. BULLITT, M.D., Professor of Physiology and Pathology in the Medical Department of St. Louis University.

Medical education is a subject in which all classes of men should feel deeply interested. The demand for physicians is a public demand, and not a mere professional requirement. The rapid increase of population in the United States has created such a call for doctors, that each year there seems to have arisen further necessity for the extension of the facilities of acquiring medical instruction. This necessity has been recognized not alone by the profession, but as well by the public, at whose cost indeed many of the medical institutions have been established. Every principal city in the Union accordingly has its school, and some of them are provided with several; so that the supply of schools, at least, seems to be now equal to the demand for doctors. Now, whilst we are willing to admit that there has been, and will continue to be, an annually increasing demand for physicians, to supply the growing population of the new States, and that this demand creates a demand for new schools, we doubt much whether the schools that are springing up in all directions, are the description of institutions which are calculated to supply the country with such physicians as it is entitled to. As a

general rule, these institutions are established by, or at the instance of physicians who have either been disappointed in practice, or who for some reason have never become practitioners; restless, disappointed men, whose sole object is lucre, and who regard medical teaching as a traffic, to be carried on as other kinds of trade, merely for money, and who look upon the schools as business firms, to be sustained by hard puffing, diligent electioneering, or *drumming*, and extensive advertising. With such men it is a matter of little moment whether the students who may be attracted by this canvassing and advertising, are educated or not. They regard the relation of student and teacher as precisely similar to that of buyer and seller, and make the rule "caveat emptor," the standard of their moral obligations. Institutions which are in the hands of such persons cannot of course be suitable establishments for the education of physicians. The students of medicine generally are young men whose experience in the affairs of life is necessarily limited, and whose ability to judge of the qualifications of teachers of medicine is still more limited. They start from their homes with the determination to enter as pupils of some school which has been recommended by their preceptors, but before they can reach their destination they are often compelled to pass through some one or more places where there are schools of medicine, which, like other business firms, have their *drummers* stationed about in all directions, by whom every youth who looks like a medical student is to be beset with soft words and winning solicitations. Thus inexperienced, students are continually diverted from their original detornations, and induced, in disregard of the advice of their preceptors, to matriculate and disgorge the price of their tuition into the coffers of an institution of which they have never heard, and are left, perhaps, to spend their winter under auspices so little favorable to improvement, that they return in the spring, with nothing gained but a bundle of *tickets*. Or it may be that they have left their homes with directions to become the pupils of a particular school in a certain city, which they may be fortunate enough to reach without being interrupted on their way. Here perhaps there is another school than that to which they have been consigned, and it often happens that they are scarcely set down at the hotel of their choice before they are approached by some *kind hearted, disinterested* personage, who volunteers his advice, which is to disregard that of their preceptors, and become the pupils of another school; which, in the estimation of the adviser is infinitely superior to that to which they may have been consigned. This *purports*, of course, to be the advice of a *wholly disinterested* man, who is presumed, from his residence on the spot, to be perfectly familiar with the comparative merits of the schools. The reader doubtless recognizes in this



personage the "drummer" of the school whose interest he so insidiously advocates. Well, the unsuspecting students are induced at last to visit the school thus highly recommended by this unknown *friend*, and compare its teachers with those of the school which their *true friend*, their preceptor, has recommended; and thus they are seduced into the clutches of these *professional speculators*. The result may be easily foretold. If they be susceptible of flattery, as most young men are, the superlatively condescending attentions of these professional dignitaries will so charm and fascinate them, that they will find it almost impossible to resist the solicitations to matriculate, and take their "tickets," even before they have visited the school of their deliberate choice at all. No comparison, therefore, is made; but even were this attempted, students are not qualified to decide between good and profitable teaching and its more fascinating semblance. These are not mere fancy sketches, drawn for amusement, nor for sinister purposes, but veritable pictures, as true to facts as the most faithful Daguerreotype can be to nature.

Now in view of the dangers by which students are thus beset, two things become important; first, that private preceptors should regard it as one of the most imperative duties to their pupils to select a school for them, and guard them effectually against the danger of being seduced off from this school of their choice. The pupils should be made to understand that certain schools will use every means which avarice can suggest to obtain their money by securing them as pupils; and they should be especially instructed that such a course is indicative at once of want of professional pride, and of conscious inferiority. I hold that no honorable man can descend so low as to use such means, and no man of real merit as a teacher can do it; because true Science imparts to her faithful followers a dignity and elevation of character which would revolt at the idea of deception or injustice. An honorable man, such as the true lover of Science is always found to be, regards the money with which a pupil starts from his home as already the property of those to whose hands he has been consigned, and would look upon himself as little better than a swindler were he to become possessed of it by seducing the pupil from the course advised by the preceptor. Such interference with the rights of the private preceptor or with the interests of the school recommended by him, must elicit the scorn and contempt of all honorable men. A true lover of Science, conscious of his own merit, would spurn the thought of gathering a class by any such means. Let every physician, therefore, who undertakes the responsible office of private preceptor, make it his especial duty to select from among the various schools of the country the one which in his judgment may seem most worthy, and use his influence with his pupils to

induce them to finish their course of study in such institution. In this way the schools will be judged by those whose finished education is presumed to qualify them for the task. The teachers must thus stand or fall by the judgment of their peers. And mere speculators in the business of medical teaching will less easily build up their schools by means of flattery and deception.

But it may be said that those who are likely to be the private preceptors of the majority of pupils can not, from their remote situations, in the villages and country places, have opportunities of forming just estimates of the abilities of teachers whom they have never heard lecture, and that they must therefore leave it with the pupil to decide amongst the schools according to the information they may get after leaving home, aided by their own observation. We must confess we do not see the force of this objection to the course we have recommended; for there are various means of estimating the merit of a school, within the reach of every physician. In the first place, every public teacher should be a contributor to the cause of the profession, through some one or more of the medical journals, and thus afford the profession some evidence of his merit. But the best method of estimating the desert of a school, is by the proficiency of its alumni. Most of the schools are yearly sending forth graduates to all parts of the country, and the attainments and success of these, as they are exhibited while they are yet fresh from the colleges, is perhaps the best criterion of the worthiness of their alma mater. But granting that the private preceptors are not in possession of the means of judging between the schools, it becomes necessary in that case that they should instruct their students as to what constitutes good teaching. The pupil should be made to understand that the mere manner and voice of the lecturer have less to do with the business of scientific teaching than young men are prone to suppose. A musical voice and stump orator manner will please, perhaps fascinate the mind of the inexperienced student; but these are far from being necessary, or even commendable in scientific lecturers. The style of the best and most esteemed teachers of science is entirely conversational, and necessarily so, because it is only when the speaker begins to theorize, or rant, or moralize that the manner and cadences of the stump orator or the forensic or pulpit orators ever can be advantageously employed. There are so many different styles of lecturing in the different medical schools of our Union, that it is admitted to be a difficult matter to determine the exact degree of faultiness of the bad; but we can apply to them the method of exclusion, and thus be able to determine when they are not good. This is to be accomplished by indicating the styles which are adopted by the best teachers and found to be



best in practice. But as this will require some care and reflection, we shall postpone its consideration for the present.—*St. Louis Med. & Surg. Journal.*

4. *Medical Eras.*—Every fresh event is dignified by the name of ERA, now-a-days; we seem to have arrived at the *era of eras*. There are the MESMERIAN era, the HAHNEMANNIAN era, the PRIESSNITZIAN era, and at length we have, as we said on a former occasion, the quintessence of all in the FORBESIAN era—not to mention the DICKSONIAN, the MORRISONIAN, the ELLIOTSONIAN, the RASPAILIAN, and others of a kindred spirit. In the midst of the age of eras, why should not *we* lay claim to one? We must do so in self-defence. Ours, then, shall be the ANTI-QUACKERY ERA.

We have begun a task, and will go on with it. We are already in the second year of *our* era. We have devoted one year to this subject, and are willing to devote a life to it, if so be this hydra may be beheaded and seared. But the profession must assist us. They must no longer enact the wagoner calling upon Jupiter; they must put their own shoulders to the wheel.

We have dwelt on the injuries accruing to public morals, public health, and the interests of the profession, from the vices of quackery. We have dwelt, too, upon the numerous modes in which professional men may and do, sometimes inconsiderately, sometimes from questionable motives, second the influence of this social Moloch. We have pointed out some of the evils arising from testimonials in favor of quack nostrums, from the system of prescribing quack medicines, and from the by no means singular evil of medical men appearing as the proprietors of such medicines, and from the system of allowing the most nefarious quacks to take what liberties they please with, and to convert to any vile uses, the names of men known and eminent in the medical profession.

The wrongs wrought at the Royal Society we have exposed, and will expose again. But the profession ought to feel the question as their own, and raise their voice as one man against such enormities. Now that we are attacking *the quackeries*, exposing the knavery of the duping and the folly of the duped, we emphatically say, let the profession help us, or rather let them help themselves, for the cause is their own. Medicine is indeed *militant* in these days, and every true son of medicine should be a soldier in defence of his profession.

But, aided or unaided, we will drive all the *isms*, and all the *eras*, the GENUS of quacks, and the essence and quintessence of quackery, from our good and beneficent profession, into their own regions of darkness and crime, with their own nicknames of “drug doctors” and “drug diseases,” for their fiendish consolation; and we beseech every member of our profes-

sion to recoil from touching either their works or the works in which they are given shelter, as they would shun the viper, its venom, and its nest; and to shun their very words, terms, and descriptions, as profane and obscene words are shunned by the excellent of the earth.

Wherever labor, effort, talent, originality, striving to raise the status, by raising the science, of our profession, be discovered, let the members of that profession be prompt to express its applause,—let calumny, whether in our conversations, or in our critical labors, cease,—let the dignity of our profession be upheld,—let all wrong, and let all quackery, in or out of it, be eschewed.

If there be a name in the profession which we ought to revere, it is that of LOUIS; for labour, for probity, for talent, that physician is without a parallel. Did our readers ever peruse the first few pages of the “*Examen de l’Examen?*” We will one day lay these before them. It is a perfect picture of a great and good man—of a high-minded and conscientious physician. His writings, like his noble physiognomy, have the sternness of inflexible integrity and truth; his heart is filled with the love of mankind, and devotion to his profession. But what shall we say of the LOUIS critics, who are striving to turn his authority against medicine,—striving to prove from him, for instance, that bleeding is of no value in pneumonia, and, therefore, neither in rheumatism, nor in acute inflammation of any kind. Some defender of LOUIS, who shall rescue him from his slanderers, is required. Everywhere we are met with perversions of the facts and results of LOUIS, in favour of quackery, of “nature,” of the “*vis medicatrix*,” and the other excuses of quackish empiricism.

To return to OUR *era*. Let us establish a code of ethics,—let us be tender of the reputation of our profession, and of our professional brother—let calumny cease,—let our conduct be ethical, our opinions logical; the former implies every honorable feeling; the latter, laborious research, accuracy, probity, and a profound hatred of all quackery, whatever its parentage or its name, whether within or without the pale of the profession. Let us do justly, foster the right and the truth, repudiate wrong, iniquity, and falsehood, with all slander against our profession, all calumnies, and all nicknames. Let the profession, and let every individual thereof, be true to itself and himself.—*Lancet*, in *Med. News*.



## RUSH MEDICAL COLLEGE.

### SUMMER COURSE OF INSTRUCTION.

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A COURSE OF LECTURES will be delivered in this Institution, to commence on the first Monday of April next, and continue 12 weeks, as follows:

*On Operative Surgery, application of Bandages and Apparatus; on Auscultation and Percussion.* By D. BRAINARD, M.D.

*On Organic Chemistry, Vegetable Chemistry in its relation to Pharmacy, and Animal Chemistry in its relations to Physiology and Pathology.* By J. V. Z. BLANEY, M.D.

*On Anatomy.* By CICERO ROBBE, M.D.

The Dispensary, at which there are now treated a large number of cases weekly, will be kept open, and Clinical Lectures will be given upon all the more interesting diseases which present themselves. The students will be exercised in examining and recording cases.

The Anatomical Rooms will be open during the month of March, and every facility will be afforded for the prosecution of practical Anatomy.

The fee for the entire course is \$25. Boarding can be obtained at \$1 50 per week.

Chicago, Feb. 17, 1847.

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### TO READERS AND CORRESPONDENTS.

We have received communications from Dr. P. Henry Clark and Prof. David Prince.

The following works have been received:—

*Adulteration of various Substances used in Medicine and the Arts, with the Means of Detecting them: intended as a Manual for the Physician, the Apothecary and the Artisan.* By Lewis C. Beck, M.D., Prof. of Chemistry in Rutgers's College: Honorary Member of the Medical Society of the State of New York, etc. New York: Samuel S. & William Wood, No. 261 Pearl Street. 1846. pp 333. 12mo.

*An Anatomical description of the Diseases of the Organs of Circulation and Respiration.* By Charles Edward Hasse, Professor of Pathology and Clinical Medicine in the University of Zurich, etc. etc. Translated and edited by E. W. Swayne, M.D., Physician Extraordinary to H. R. H. the Dutchess of Kent. Philadelphia: Lee & Blanchard. 1846. pp. 277. 8vo. (From the Publishers.)

*Latham on diseases of the Heart.* Forming the Oct. No. of Bell's Select Medical Library.

Chemistry of the Four Seasons—Spring, Summer, Autumn, and Winter: An Essay principally concerning Natural Phenomena, admitting interpretation by Chemical Science, and illustrating passages of Scripture. By Thomas Griffiths, Professor of Chemistry in the Medical College of St. Bartholomew's Hospital, &c. Philadelphia: Lea & Blanchard.—1846. pp. 451. 12mo. From the Publishers. (For sale by Brautigam & Keen, Chicago.)

Summary of the Transactions of the College of Physicians and Surgeons of Philadelphia—from Sept. to Nov. 1846, inclusive.

Lecture on Obstetrics, &c., by G. S. Bedford, M.D., Prof. in the University of New York—Session 1846-7.

An Introductory Lecture, delivered before the class of the Baltimore College of Dental Surgery, by A. Wescott, A.M., M.D., Prof.

Annual Catalogue of the Med. Department of the University of Louisville.

Observations on Intermittent Fever, by William M. Bowling, M.D., of Montgomery, Alabama.

Valedictory Lecture, delivered before the Class in Rush Medical College, by John McLean, M. D. and Professor.

Annual Catalogue of Western Reserve College.

Annual Announcement of the Medical Institute, Cincinnati, Ohio.

Several interesting extracts relative to the use of the etherial vapor have been crowded out.

The following have been received in exchange:—

The Annalist, a Record of Practical Medicine.

The Buffalo Journal and Medical Review.

Stockton & Co's Dental Intelligencer. (Phila.)

Boston Medical and Surgical Journal.

New York Medical and Surgical Reporter.

The Medical Examiner.

The Missouri Medical and Surgical Journal.

The Medical News and Library.

The New York Journal of Medicine.

• The Practical Educator and Journal of Health. (Boston.)

The Bulletin of Medical Science.

The American Journal of Insanity.

The Western Journal of Medicine and Surgery.

The Prairie Farmer.

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